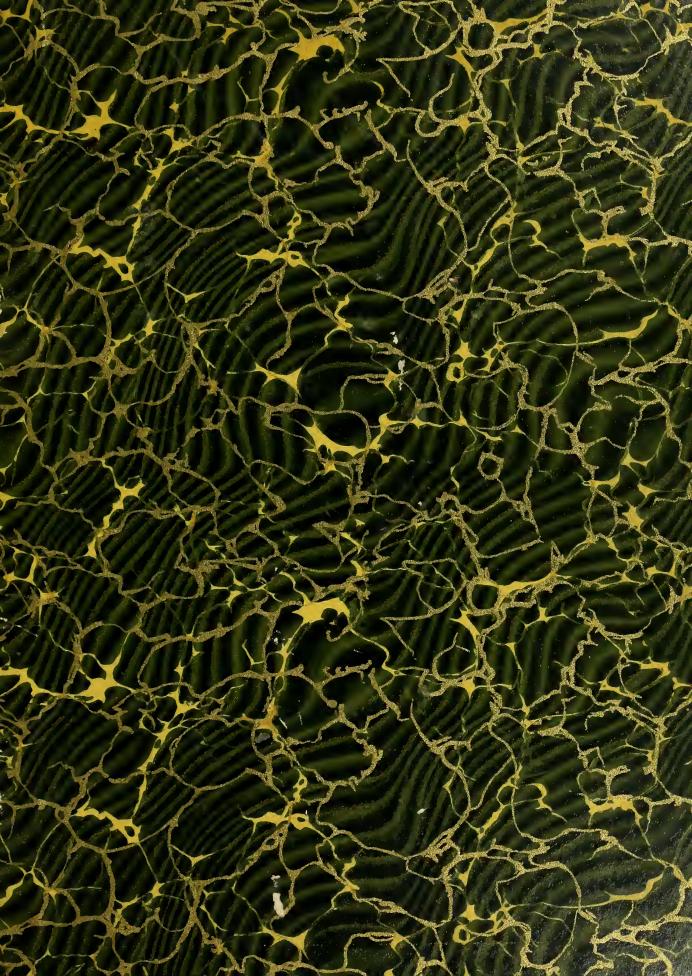
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## WEEKLY BULLETIN

OF THE OFFICES OF

### WESTERN IRRIGATION AGRICULTURE

AND

## DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

:

### WEEKLY BULLETIN

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE and DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

July 5, 1919.

No. 1

### Western Irrigation Agriculture.

### Field Notes.

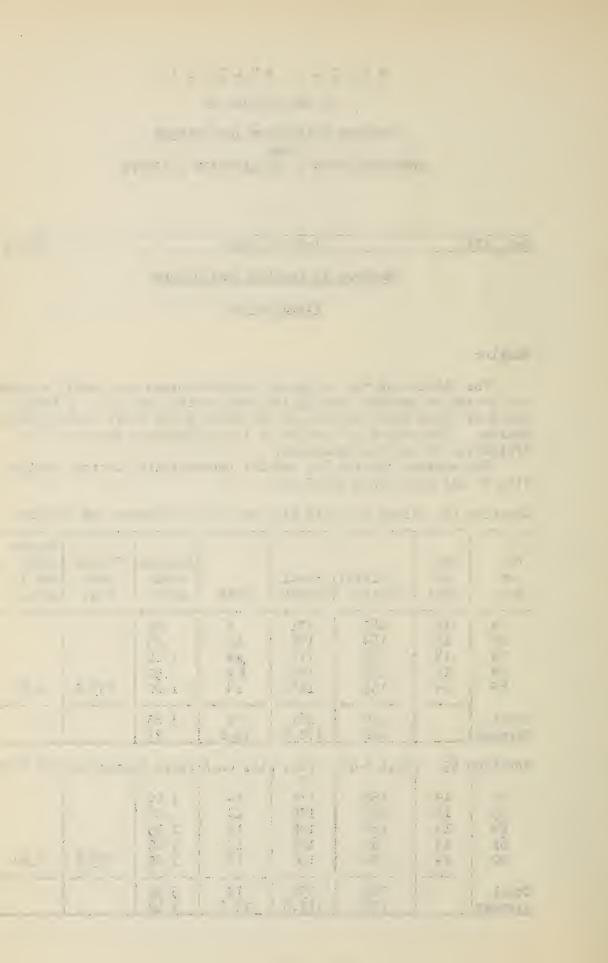
Huntley.

The alfalfa on the irrigated rotation plats was raked, shocked, and housed or stacked, during the week ending June 21. A few of the best plats were thinned and all beets given their second cultivation. The second irrigation of the grain crops and the third irrigation of hay was commenced.

The weather remains hot and dry necessitating another irrigation of all crops in a few days.

Rotation 67. Field K .-- Fall pigs on Alfalfa Pasture and 2% Corn.

| No.<br>of<br>Hog.   | No.<br>of<br>Days          | Initial<br>Weight               | Final<br>Weight.                | Gain                      | Average<br>daily<br>gain.           | Pounds corn fed.                     | Pounds<br>grain<br>per 1b.<br>gain.   |
|---|----------------------------|---------------------------------|---------------------------------|---------------------------|-------------------------------------|--------------------------------------|---------------------------------------|
| 22<br>24<br>64<br>65  | 14<br>14<br>14<br>14<br>14 | 167<br>164<br>162<br>162<br>155 | 171<br>176<br>176<br>169        | 12<br>12<br>14<br>7<br>14 | .29<br>.86<br>1.00<br>.50<br>1.00   | 235.2                                | 4,61                                  |
| Total<br>Average  |                            | 810<br>162                      | 861<br>172.2                    | 51<br>10.2                | 3.65<br>.73                         | alle alle alle ann type eile ann app | Total opin educate under a base under |
| Rotation 69. Field L-IV Fall pigs on Alfalfa Pasture and 2% Corn. |                            |                                 |                                 |                           |                                     |                                      |                                       |
| 45<br>53<br>54<br>61<br>90  | 14<br>14<br>14<br>14       | 158<br>167<br>162<br>161<br>132 | 172<br>179<br>178<br>179<br>150 | 14<br>12<br>16<br>18      | 1.00<br>.86<br>1.15<br>1.29<br>1.29 | 229.6                                | 2.94                                  |
| Total<br>Average  | The case they take not age | 780<br>156                      | 858<br>171.6                    | 78<br>15.6                | 5.59<br>1,12                        | 100 till car till 400 til 400 til    | wg es es es es es es                  |



Newlands.

During the week ending June 14, the grass plats on A-3 were hoed and irrigated. Corn plats, D-1, E-1 and 2, F-3 and 15, were cultivated following irrigation. The following plats were irrigated: E-1, 2, 7, and 8; D-1 to 6, inclusive; H-1, 2, 3, 4, 5, 7, 8, 9, 10, 17, 18, and 19; F-1 to 16, inclusive; G-1 to 5, inclusive, and Y-10 to 21, inclusive.

Corn and potato plats, D-1, E-1 and 2, F-3 and 15, and H-3 and 4 were cultivated during the week ending June 21. Beet checks E-7 and 8 were hoed.

The volunteer alfalfa in H-5, 6 and 7, and the alfalfa and sweet

clover from the ditch banks, was hauled to the stack.

The following plats were irrigated during the week: B-9 and 10; A-1, 2 and 3; H-6, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24 and 25; D-7 and 8; E-3, 4, 5 and 6.

### Demonstrations on Reclamation Projects.

### Field Notes.

Belle Fourche.

During the week ending June 28, 6 farm visits were made and 3 office conferences were held. A number of street conferences were held in project towns relative to the wool marketing situation.

A trip was made to Dealwood, South Dakota, during the week to discuss with the grazing manager of the Forest Service the possibility of handling several thousand head of project-owned cattle. Range grass is about gone and unless rain falls within the next two weeks, large numbers of cattle will be taken from the ranges and either sent to market or transported to regions where grass is plentiful. In such cases, the stockmen will need to make arrangements for winter feeding as well.

An effort is being made to locate grazing land and winter feed in the central and eastern part of South Dakota and in western Nebraska. Preliminary inquiries would indicate that the farmers having feed would rather buy than rent or sell grass and hay.

The National Forest Reserve and Indian Reservations are already stocked to the limit and there is no chance for government controlled grazing land.

The first advance alfalfa sale was recorded this week. Sheep-men short of grass from the Camp Crook country visited the project during the week and bought winter feed at \$20.00 per ton. This hay will be fed out of the stack on the premises. Present indications are that hay will be \$10.00 per ton higher than last year.

the second of th the second secon The state of the s The second secon Huntley.

During the week ending June 28, there were 25 requests for assistance received and 28 visits to farms were made.

Advice was given in eight cases of injury or sickness among live stock and 15 milk samples were tested.

A large quantity of hay was shipped from the project last year. One day of this week was spent with the county agent in an attempt to work out a plan by which more hay will be fed upon the farms.

The premium list for the dairy and hog show at the project

picnic was completed and published.

Dry weather and shortage of pasture are compelling owners to get rid of non-productive animals and, as the disposal of many to the local buyers advantage is out of the question, some work has been done toward a cooperative shipment. Not quite a carload have been listed to date.

June 27 was the warmest day on the project in nine years, the mercury going up to 107.

Minidoka.

One day during the week ending June 14 was spent in appraising the stock purchased for the Cassia County Calf Club. One local pure bred Shorthorn breeder and one pure bred Holstein breeder were on the committee to do the appraising with Mr. Chester and the representative of this office. Each member drew numbers and signed a note for the amount which the animal was appraised for.

There was also a cheese factory meeting this week but on account of the lack of attendance, nothing definite was accomplished.

Eighteen farm visits were made during the week ending June 21. Four days of the week were spent in accompanying Mr. J. E. Watt over the project and also in gathering data on the wool pool in Jerome County.

A pure Scotch Shorthorn sale was attended at Twin Falls. Forty-five head at this sale averaged \$680.00 per head.

Three days of the week ending June 28 were spent in getting reports up to date and general routine connected with the office.

A cheese factory meeting was held with 25 in attendance where the Rupert Cheese Factory was organized. Seven directors were elected.

Mr. Gustave Kunze, President of the Idaho State Dairymen's Association, was here to give help in the organization of the cheese factory, as well as Mr. H. R. Lockry, cheese expert, of the Western Office of the Dairy Division.



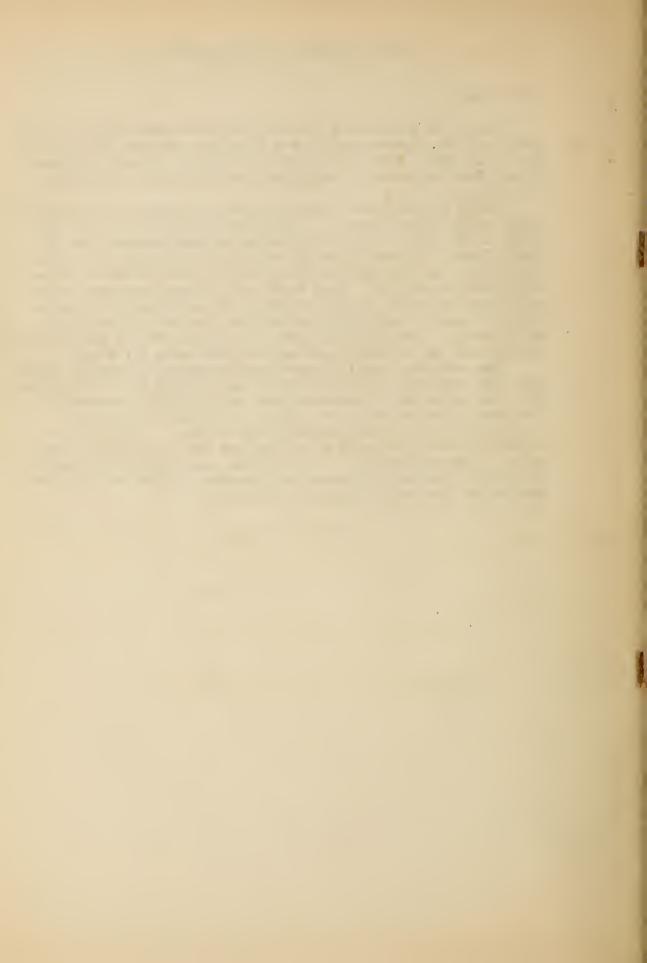
North Platte.

During the week ending June 28, two farms were visited to inspect hogs for cholera and fifteen farms were visited for general live stock work. The hogs reported as having cholera were found to have been poisoned by eating poisoned bran mixed for killing grasshoppers.

Camera pictures were taken this week of a number of the best dairy cattle in the county. These pictures will be mounted and shown in the large dairy exhibit which is being prepared for the County Fair. A booth 10 by 20 feet has been secured in the food building at the fair grounds by the dairy cattle breeders' for a milk products exhibit. This booth will be decorated with charts explaining the value of milk and dairy products, and with photographs of world record dairy cattle, and also of the best local dairy cattle. Milk from the cows at the fair will be kept in a refrigerator at this booth and sold at five cents per glass.

Some work was done this week towards organizing the men having pure bred hogs into a swine breeders' association but it is thought best now not to try to organize them until they meet together at the county fair and thus save time in traveling to see them.

The weather remains extremely hot and dry. The first cutting of alfalfa was up to standard and was put into the stack in good shape. The grasshoppers and beet worms continue to keep the farmers busy in putting out poison and spraying. There was no sickness among live stock during the past week.





## WEEKLY BULLETIN

OF THE OFFICES OF

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### WEEKLY BULLETIN

#### Of the Offices of

## WESTERN IRRIGATION AGRICULTURE and DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

July 12, 1919.

No.

### Western Irrigation Agriculture.

### Field Notes.

Huntley.

Irrigation of all crops in the irrigated rotations was started the first of the week ending June 28. This makes the third irrigation for alfalfa, and the second for the other crops, this season.

All beet plats were thinned and ditched. The best stand is very poor owing to the continued drought and extremely hot weather.

Potatoes were given their second spraying this year in order

to poison the young potato beetles that are hatching.

The flax is in blossom and indications point to a good yield of this crop.

| YIELDS OF ALFALFA IN 1919. |            |                 |               |       |  |  |  |
|----------------------------|------------|-----------------|---------------|-------|--|--|--|
| Rotation                   | Plat       | Pounds per Plat | Tons per Acre | Age   |  |  |  |
| No.                        | <u>No.</u> | 1st Cutting     | lst Cutting   | Years |  |  |  |
| <b>7</b> -                 |            |                 |               |       |  |  |  |
| 67<br>67                   | K-II-1     | 1370            | 2,74          | 2     |  |  |  |
| 67                         | K-II-2     | hogged off      |               | 3     |  |  |  |
| 67                         | K-II-6     | *               |               | 1     |  |  |  |
| 61                         | K-III-1    | 1310            | 2,62          | .2    |  |  |  |
| 61                         | K-III-2    | 940             | 1.88          | 3     |  |  |  |
| 61                         | K-III-6    | *               |               | 1     |  |  |  |
| 60                         | K-III-7    | 1100            | 2.20          | 2     |  |  |  |
| 60                         | K-III-8    | 860             | 1.72          | 3     |  |  |  |
| 60                         | K-III-12   | *               |               | 1     |  |  |  |
| 40                         | K-IV-2     | *               |               | 1     |  |  |  |
| 40                         | K-IV-3     | 1230            | 2.46          | 2     |  |  |  |
| 42                         | K-IV-8     | *               |               | 1     |  |  |  |
| 42                         | K-IV-9     | 1120            | 2.24          | 2     |  |  |  |
| 71,1                       | K-IV-12    | *               |               | 1     |  |  |  |
| 44                         | K-IV-13    | 760             | 1.52          | 2     |  |  |  |



### Huntley (continued).

|          | YIELDS OF A | ALFALFA IN 1919 (co | ontinued).    |         |
|----------|-------------|---------------------|---------------|---------|
| Rotation | Plat        | Pounds per Plat     | Tons per Acre | Age     |
| No.      | No.         | 1st Cutting         | lst Cutting   | Year's_ |
|          |             | ů.                  |               |         |
| 6        | K-IV-22     | 915                 | 1.83          | 8       |
| -        | K-I-Tri     | 3370                | 2.30          | 8       |
|          | K-II-Tri    | 14005               | 2.38          | 8       |
| 1        | K-INI-Tri   | 3080                | 1.95          | 8       |
| 46       | L-IV-11     | 1320                | 2.64          | 2       |
| 46       | L-IV-12     | 140**               | 0,28          | 1       |
| g A      | L-IV-14     | 11+85               | 2.97          | 4       |
| 64       | L-IV-15     | 160***              | 0.32          | 3.      |
| 64       | L-IV-16     | 1300                | 2,60          | 2       |
| 64       | L-IV-17     | 200**               | 0.40          | 1       |
| 69       | L-IV-22     | hogged off          |               | 3       |
| 69       | L-IV-23     | 1385                | 2,77          | 2       |
| 69<br>69 | L-IV-24     | 240**               | 0,48          | 1       |
|          | L-I-Tri     | 2845                | 2.59          | 7       |
|          | L-II-Tri    | 2785                | 2.47          | 7       |
|          | L-III-Tri   | 2615                | 2,25          | 7:      |
|          | L-IV-Tri    | 1655                | 1.46          | 2       |
|          |             |                     |               |         |

\* Spring seeded, - insufficient growth for cutting.

\*\* Fall seeded, - reseeded this spring to increase stand.

\*\*\* Plowed up last fall by mistake.

San Antonio.

During the week ending June 28, the maximum temperature was 91, minimum 71, and greatest daily range 19. Rain fell on five days of the week, the total precipitation being 3.84 inches. The total precipitation for June was 5.79 inches; rain was recorded on 15 different days. June precipitation was the heaviest since 1905 when 6.01 inches was reported. In June, 1898, the precipitation was 7.06 inches. The total precipitation from January 1 to June 30 was 18.41 inches.

An excellent crop of corn is assured throughout the San Antonio region. Corn is denting and the husks are beginning to turn brown. The crop has apparently not suffered for moisture at any period in its growth. Good crops of both grain and forage sorghums have been made. Milo on the station is ready for harvest and good yields are expected. The sorghum midges are very numerous and all of the late heads are blasting.



San Antonio (continued).

Only two days' field work was possible during the entire week. The fallow rotation plats were harrowed. Plowing of oat plats in the rotation experiments was continued. Sorghum for forage on the rotation plats was cut. Some weeding was done. The wet weather period was utilized in cleaning seed grain, grinding feed, and in cutting weeds about the lots.

### Demonstrations on Reclamation Projects.

### Field Notes.

Belle Fourche.

On one day of the week ending July 5, thirty-one project sheep growers met at Newell to complete arrangements for the disposal of their wool which had become a part of the wool pool. The pool totaled 55,000 pounds. Buyers were on hand to place bids. A form of agreement to the effect that each man who signed the agreement would stand by the price accepted by the majority of the members of the pool and deliver their wool to the buyer making the successful bid was prepared. This was necessary before the buyers would place their bids as, in a similar case at Bellefourche the week before, the same buyers bid on a quantity of wool and when the bid was accepted, one consignor to the pool was dissatisfied and refused to deliver his wool.

When the wool on the project was first arranged, it was intended that each farmer's clip would sell separately. However, at the last minute, the farmers decided to pool the entire consignment and sell it in one lump. Accordingly bids were asked for on that basis. Three bids were made, ranging from 56 cents to 57-3/4 cents. The latter bid was rejected by the assembled farmers and no sale made. Several individual clips were then withdrawn from the pool and sold separately at 57 cents. From present indications, the wool will be consigned to a central wool house.

Large and small farmers were represented in the pool. The smallest quantity belonging to any one farmer was 190 pounds, the largest quantity belonging to any individual was 7,533 pounds. It is feared that the farmers lost a good opportunity and should have sold since they may not get as much by consigning.

One project farmer placed a nice car of fat lambs on the Omaha market June 24. They averaged 73 pounds and sold for \$16.35 per cwt. These lambs began coming February 7. The ewes were fed alfalfa hay and received grain when the lambs began coming. One



Belle Fourche (continued).

pound of oats each day was given to the ewes. The lambs had access by means of a creep to grain at any time they wished it. As soon as green alfalfa became available, the herd was placed on pasture. They were held here until marketed. This farmer had 260 ewes and lambed out 350 lambs. After being placed on alfalfa, only two per cent loss occurred up to the time of shipment. Another load will be shipped about July 10. The lambs were grade Shropshires.

Huntley.

Sixteen requests for assistance were received and 31 farm visits made during the week ending July 5. Advice was given in nine cases of sickness among live stock and 13 milk samples were tested.

Three days of the week were given chiefly to matters relating to a cooperative shipment of cattle. A carload, 26 head of fat cows and steers, was consigned to Bowles Live Stock Commission Company, South Omaha, Thursday. Unless local conditions improve, another shipment will probably be made.

A poultry department and a horse department have been added to the project pinnic show and some time was given to these as well as to other departments.

North Platte.

The first two days of the week ending July 5 were spent in weighing and assisting with the wool brought in by the farmers of the county for the cooperative wool sale. This wool sale was made possible by the cooperation of the farmers, State Extension Department, the Experiment Station, County Agent, and the merchants of Mitchell. The fair grounds were used for storing the wool. As it was brought in by the farmers, it was weighed and placed in separate lots, with a tag on each sack stating the amount of wool it contained. Two buyers bid on the wool and it was sold to them. The average price paid was fifty cents, one lot sold at 57 cents and the lowest price brought by any lot was 47 cents. There were 44 lots, or wool brought in by 44 farmers, and the total amount brought in was 38,000 pounds.

One herd of 20 head of hogs was vaccinated against cholera this week. The herd in which there was cholera last week and which was vaccinated is doing very well and the cholera has not spread to any of the adjoining farms.

Quite a number of farms were visited during the week in the interest of the dairy industry. Several men were assisted in keeping milk records.

There were several local showers on the project this week which were of great benefit to all crops.



Shoshone.

During the week rending June 28, 2 farm visits were made, 24 office calls were received, and 6 other conferences were held.

The final meeting regarding the sale of wool was held by the wool growers this week and the vote was unanimous to consign the wool to Leland and Adams of Eoston. Several of the first bidders had received instructions from their firms not to buy any more clothing wool and it seemed that the highest bid now obtainable was 45-1/2 cents per pound. This bid was not satisfactory, especially to those with the best wool. In fact, it had become evident that selling at a flat price was very unsatisfactory and that with bidders refusing to bid on each man's wool separately, the only thing to do was to consign it so that it could be graded and sell on grade. Forty cents per pound was advanced on the wool. The shipment consisted of 26,559 pounds net and 45 owners cooperated in the shipment.

It is possible that if the owners had agreed to sell to the highest bidder with no rights reserved to reject bids, the buyers might have bid on each man's wool separately, especially if each man's wool could have been placed by itself so that it could easily have been given a thorough examination. The owners hesitated to waive the right to reject bids and it would have been very difficult to arrange the wool so each man's could have been easily given a thorough examination. Furthermore, some arrangement would have had to have been made so that all wool would go to one man since no one individual would buy less than a carload.

It seemed impossible to make up a load of hogs in the near future and inadvisable to ship hogs and cattle in the same car without an experienced man in charge, consequently, a buyer was assisted in buying hogs from those who wished to sell immediately and he finished the load with hogs bought off the project.

The cattle which had been taken by the herder to graze during the summer on the range adjoining the project were returned to their owners the last of this week. It is probable that a car of cattle will be shipped soon.

Uncompahgre.

Seven farmers were visited during the week ending June 21 and calls were received from ten sources.

A trip was made to the reserve during the week to investigate the range conditions in company with three of the project farmers. The grass was found to be in excellent condition and the sheep in fine shape. The recent freeze was severe on the oak leaves, which



Uncompangre (continued).

were out. This will be bad for the cattle as they depend on this feed for fall range. It was noticed that some new sprouts are coming out, but this feed will be short in the fall.

Samples of milk were tested for two farmers during the week. One of the cows tested made 55 pounds of butter fat for the month.

Some time was taken up in work on the premium list for the Western Slope Fair.

Some of the hog breeders are interested in conducting a sale of hogs during fair week. It has not been definitely decided just what can be done along this line as three of the local breeders have already conducted private sales during the spring and winter.

There is some discussion on the part of farmers near Olathe regarding a branch of the veterinary service association. ing into the matter, it is found that there is a possiblity of obtaining 150 members and forming an association at Olathe. will probably be worked on next fall.

Butter fat still remains at \$0.48 at the Montrose Creamery. A carload of hogs sent from the project during the week brought \$20.50 at Denver. The shrinkage was 6 per cent on home weights.

Thirteen farms were visited during the week ending June 28 and calls were received from eleven sources,

Two circular letters were written and mailed during the week, one regarding the organization of a pure bred live stock association in the valley and the other in regard to a consignment stock sale at the Western Slope Fair in September,

Assistance was given to the Grange Cooperative Association in

getting out a carload of hogs to the Denver market.

Arrangements were completed for the stock display at the Western Slope Fair. The other activities during the week were in the nature of milk testing, advice on hog feeding, and investigation of sickness among hogs.

The first cutting of hay is practically all in the stack at present. Regardless of the freeze, the crop was nearly up to the standard.

The wheat that at first showed the effect of the freeze is coming out in very good shape.

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#### WEEKLY BULLETIA

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Vol. XVI.

July 19, 1919.

No.

### Western Irrigation Agriculture.

### Field Notes.

Belle Fourche.

The first boys encampment was held July 14 to 19 at the experiment farm. A carefully arranged program was carried out. The mornings were given to instructional and demonstrational work in livestock, grains, farm mechanics, dry and irrigated farming, and general farm and home interests. The afternoons were given to inspection tours, athletics, and games. The evenings were given to club singing, illustrated talks, and moving pictures. Each member paid his own expenses, the cost of the meals and lodging being \$5.00 for the week. This covered the entire cost while in the camp.

Huntley.

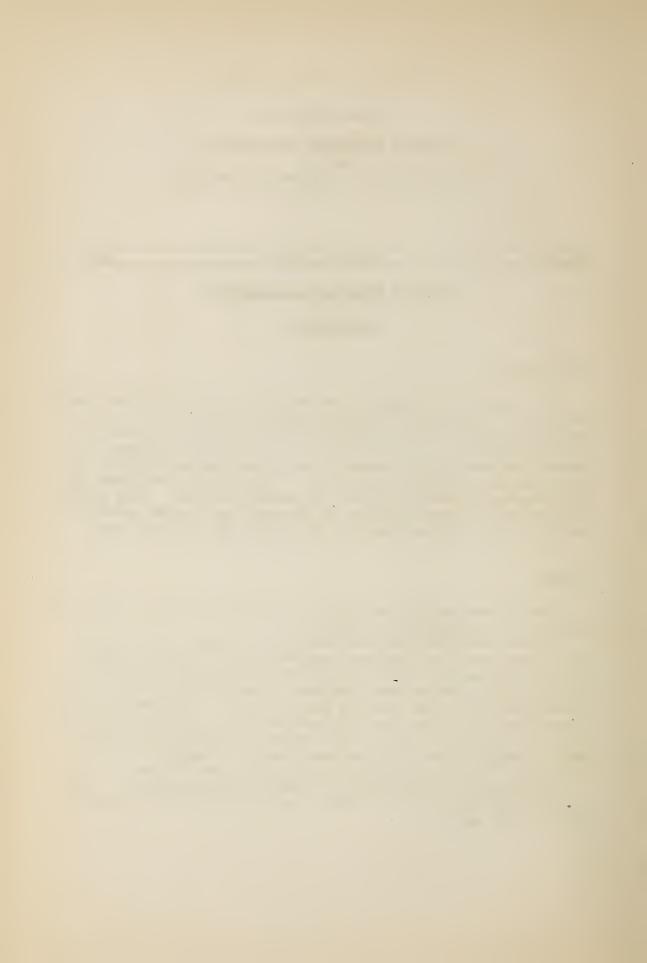
The maximum temperature for the two weeks ending July 5 was 107,

minimum 53, and precipitation .32 inch.

Drouth conditions continued during this period with unusually high temperatures, the maximum temperature on several days being over 100 degrees, F. The condition of the water supply for irrigation is becoming rather acute and many of the smaller ditches in the Yellowstone Valley have been dry for some time. The Huntley ditch appears to be in better condition than most of the others and, while the water shortage is felt to some extent, conditions are not yet serious except on the high line canal where the supply has been cut off a part of the time through the pump being out of order.

The stacking of first cutting alfalfa hay was completed. The yields of hay in fields A-IV. B-VII, and L triangles are given on

the following page.



Huntley (continued).

Field A-IV.
Seeded in 1918 with barley as nurse crop.

|   | Y I E   | L D S  |
|---|---|--|
| Plat No.  | Plat, 1bs.  | Acre, tons.  |
| A-IV- 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11           | 500<br>495<br>465<br>690<br>640<br>620<br>480<br>625<br>715<br>690<br>470 | 1.00<br>0.99<br>0.93<br>1.38<br>1.28<br>1.24<br>0.96<br>1.25<br>1.43<br>1.38<br>0.94<br>0.94 |
| L-II*<br>L-III*<br>L-IV**   | Field L<br>2845<br>2785<br>. 2635<br>1655                                 | 2.58<br>2.47<br>2.31<br>1.42   |
| * Seeded in 1916 ** Seeded in 1918  B-VII- 1 2 3 4 5 6 7 8 9 10 11 12 | Field B-VII  200 220 210 220 210 190 230 130 245 235 250 270              | 2.00<br>2.20<br>2.10<br>2.20<br>2.10<br>1.90<br>2.80<br>1.30<br>2.45<br>2.35<br>2.50<br>2.70 |
| Field C   | ин, 400<br>8,735  | 1.82   |



Huntley (continued).

The third irrigation of alfalfa and second irrigation of all other crops in the irrigated rotation work was finished during the first half of the week ending July 5.

The second crop of alfalfa is making a very rapid and thick growth. The other crops are progressing as good as could be expected under the existing hot and dry weather conditions. All corn and potato plats were cultivated the last part of the week.

Weeds were hoed out of the row crop plants and on the headlands. Hand pulling was resorted to in order to get the enormous growth of wild sunflowers out of many of the plats.

The spring period of pasturing hogs on alfalfa ended July 4 and the summer period was started. Eight spring farrowed Duroc-Jersey pigs per plat are being used for the summer period. Of the eight pigs used for this work in field K, four are grades and four are pure breds, while there are three grades and five pure breds being used in field L-IV.

| Rotation 67. Field K Fall pigs on alfalfa pasture and 2% corn.   |                            |                                 |                                 |                           |                          |                        |                      |
|--|----------------------------|---------------------------------|---------------------------------|---------------------------|--------------------------|------------------------|----------------------|
| No,<br>of<br>Hog.  | No.<br>of<br>days          | Initial Weight.                 | Final<br>Weight.                | Gain                      | Average daily gain.      | Pounds<br>corn<br>fed. | Pounds grain per 1b. |
| 4<br>22<br>24<br>64<br>65  | 14<br>14<br>14<br>14<br>14 | 171<br>176<br>176<br>169<br>169 | 181<br>188<br>185<br>182<br>182 | 10<br>12<br>9<br>13<br>13 | .72<br>.86<br>.64<br>.93 | 252                    | 4.42                 |
| Total<br>Average   |                            | 861<br>172.2                    | 918<br>183,6                    | 57<br>11.4                | 4,08<br>,82              |                        |                      |
| Rotation 69. Field L-IVFall pigs on alfalfa pasture and 2% corn. |                            |                                 |                                 |                           |                          |                        |                      |

| Rotation                   | 169. Fi              | eld L-IV                        | Fall pig                        | s on alfa | lfa past                 | ure and a | % corn. |
|----------------------------|----------------------|---------------------------------|---------------------------------|-----------|--------------------------|-----------|---------|
| 45<br>53<br>54<br>61<br>90 | 14<br>14<br>14<br>14 | 172<br>179<br>178<br>179<br>150 | 178<br>185<br>182<br>181<br>152 | いったりの     | .43<br>.43<br>.29<br>.14 | 252       | 12.6    |
| Total<br>Average           |                      | 858<br>171.6                    | 878<br>176.6                    | 20<br>4   | 1.43                     |           |         |



## Huntley (continued).

## Results for Spring Period of Hogging Off Alfalfa.

| Items.   | Field K<br>Rotation 67                                | Field L-IV,<br>Rotation 69                            |
|--|---|---|
| No. of pigs, No. of days, Initial weight, pounds, Final weight, pounds, Total gains, pounds, Average daily gain, pounds, Grain fed, pounds, Pounds of grain per pound of gain, | 5<br>63<br>615<br>918<br>303<br>4.81<br>986.8<br>3.26 | 5<br>63<br>610<br>878<br>268<br>4.25<br>981.2<br>3.67 |

## Newlands.

All corn and beet checks were hoed and cultivated during the two weeks ending July 5. Foxtail was cut from the fields and sweet clover from the ditch banks. The barley on B-1 to 8, inclusive, was cut for hay.

The following fields were irrigated: Y-1 to -20; B-1, 2, 3, 4, 5, 6, 9, and 10; C; D; G; E-1, 2, 7, and 8; H-3, 9, 10, 17, and 18; and all of F except plat 16.

#### San Antonio.

During the week ending July 5, the maximum temperature was 90, minimum 69, and greatest daily range 21. The total precipitation was .17 inch.

Field work was continued throughout the week. Milo in the rotation plats was cut on Tuesday and Wednesday. All cotton was cultivated. The orchards were also cultivated. Part of the sorghum for forage in the rotation experiments was shocked. Considerable weeding was done.

The large amount of wet weather has delayed field work rather seriously and, of course, has increased weed growth. As a result, we are somewhat behind with plowing and other field work.

Considerable fruit is ripening. Nearly all of the plums have ripened and several varieties of peaches have ripened to date.



San Antonio (continued).

Messrs. O. F. Cook and Robert Taylor visited the station on Thursday. They left that evening to continue their trip to Arizona and California.

During the week ending July 12, the maximum temperature was 93, minimum 70, and greatest daily range 21. Rain fell almost continuously throughout Sunday, the total precipitation being 1.37 inches. A part of the forage sorghum was not yet shocked. This is the second time it was wet after cutting. As a result, it is badly discolored.

No field work was possible before Wednesday afternoon. Broom corn was harvested and threshed on Wednesday and Thursday. Orchards were cultivated. Cotton in the rotation experiments and a part of the other cotton was cultivated. The remainder of the sorghum hay was shocked. Part of the cotton in the rotation experiments was weeded.

Several men connected with the pink boll worm eradication work visited the farm on Friday afternoon.

#### Demonstrations on Reclamation Projects.

#### Field Notes.

Belle Fourche.

During the week ending July 12, seventeen farm visits were made and two office conferences held. Two circular letters were sent out and arrangements made to ship cooperatively two cars of lambs and one car of wool.

One letter to the project hog growers was to determine the number of feeder hogs available for shipment this fall. A number of requests for feeder hogs have been received and the need for some definite information on who had such hogs for sale was felt. In addition, if the response to the letters is good, some definite information as to the number of hogs grown and shipped by project farmers will be available.

Three copies each of eighteen different bulletins on various subjects were placed in two project banks during the week. The bankers promised to keep track on the farmers taking these bulletins, paying particular attention to what subjects the recipients select.



Belle Fourche (continued).

The names of these farmers will be placed on file for future attention.

Lambs are beginning to move from the range, several cars going out during the week. Alfalfa pastured lambs far outweigh the range product. The losses have also been less.

Newlands.

During the week ending July 5, 22 calls for assistance were received and visits were made to eleven farms in response to calls.

Since the new crop of alfalfa hay has been harvested, there has been considerable trouble with impaction reported among dairy animals. It is difficult to account for this trouble, explanation to be offered is that the cows eat excessive quantities This same condition usually prevails in the fall when cattle are turned into the stubble fields after the last crop of alfalfa is removed. As a treatment for these cases of impaction, two pounds of epsom salts in one-half gallon of warm water will usually give relief. If relief does not come within twenty-four hours with this treatment, two doses each of one quart of raw linseed oil is given each day together with one-half ounce of oil of turpentine or, better still, one and one-half drams each of fluid extract of mux vomica and fluid extract of ginger is given with each dose of oil to stimulate the movement of the bowels and keep down fermentation. In difficult cases, this latter treatment may have to be given over several days. In cases where the animal is feverish, cool water enemas are very beneficial.

The harvesting of the first crop of alfalfa hay is now practically completed. The ranchers in the Fernley district are making an effort to establish a price for their hay and have set a price of \$14,00 a ton in the stack. Up to the present time, there have been no buyers for hay. At this time last year, a very large part of the hay was contracted for at prices up to \$20,00 in the stack. There is being some effort made in the Fallon district to establish prices for hay. The two alfalfa meal mills in Fallon will, no doubt, be a great help in stabilizing prices and furnishing a market for small lots of hay that heretofore have been difficult to dispose of to cattle feeders.

With a continuation of the present favorable growing weather, together with the early harvesting of the first crop of alfalfa hay, many ranchers hope to harvest four crops of alfalfa this year. This applies especially to dairy farmers who do not allow their alfalfa

to mature as much as the ranchers who grow hay for sale,



Shoshone.

During the week ending July 5, five farm visits were made, 24 office calls were received, and nine other conferences were held. An article was written for the newspaper on wool shipment.

The web worm is damaging some of the crops here now. It attacks the Canadian thistle first, then the young alfalfa, and then wheat.

Practically all of the men who bought ewes last fall to lamb this spring have been pasturing alfalfa with them this summer and practically all of them have lost so many sheep from bloat as to discourage them from pasturing alfalfa with sheep. Mr. Overman, who has pastured successfully for several years, lost about twenty head in two days when he turned them from one alfalfa field to another. Another man who has pastured sheep on alfalfa successfully for several years, lost several this year. He thought it was because the pasture was too large and the sheep traveled, too He decreased the size of the pasture and has lost none Another man had a large flock in a field which had only one watering place. He lost a number in a few days and said they seemed to be always on their way to water. He turned a stream through the middle of the field and has not had any losses since.

During the week ending July 12, thirty-one office calls were received and 29 other conferences were held.

A shipment of 45 cattle and 237 sheep, 14 men cooperating in the cattle shipment and 8 men in the sheep shipment, was made.

Several articles were written for the newspapers regarding cooperative shipment, feeding dry cows, and feeding whole milk to calves.

The owner of a large number of range ewes offers to deliver on November 1 to any project farmer as many good, young ewes as he has feed to care for properly and to take them back April 15. are to be bred to lamb during the month of February so the farmer will have nothing to do with the breeding and the lambing will be done before spring work starts. The owner will stand a 3 per cent loss provided the pelts are returned to thim and he wants \$12.00 and the pelts for every ewe lost over that. He expects the ewes to be kept in a thriving condition in so far as this can be done on alfalfa hay and, as a guarantee of proper feeding, he asks that 600 pounds of hay be reserved on the farm for every ewe until the amount necessary Any grain fed will be furnished by the owner but the is evident. farmer is expected to feed it. He will pay \$5.00 for each lamb turned back to him April 15, or will divide the lambs and wool half and half at selling time, if the farmer will stand half of the expenses of ranging during the summer.



#### Uncompangre.

Five farms were visited and requests for information were received from ten sources during the week ending July 5. Two dairy herds were tested for butter fat during the week.

Assistance was given to a group of farmers in getting in line to buy a carload of feed from the hills near the project. An offer of \$2.85 in the bulk was made for bald barley.

The weather has been extremely hot of late but the crops are not suffering. The water supply is good this season. Wheat is being cut and in the shock. The wheat that at first seemed frosted is filling and will make two-thirds of a crop. There is a great need for hog feed at present but there is not very much on hand to supply the need.

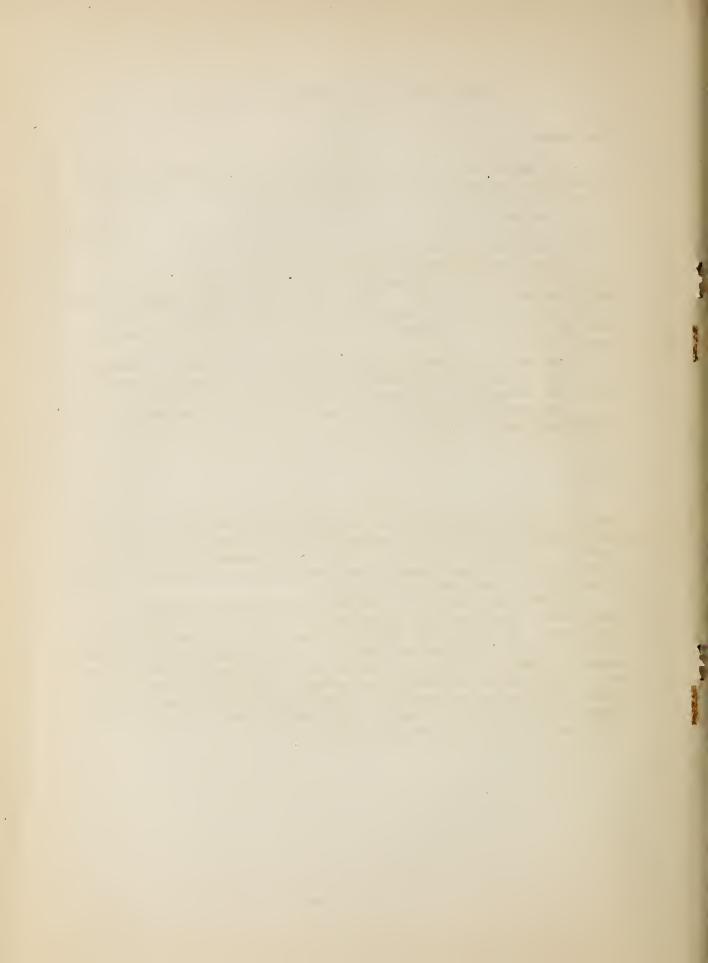
Some hay sales have been made of the first cutting at prices ranging from \$12.00 in the shock to \$16.00 in the stack. These prices are considered very high for this season of the year.

Some work is being done in regard to holding a combination consignment sale at the fair.

#### Yakima.

Ten calls for assistance were answered, 29 farms were visited, and two office conferences were held during the week ending June 21. One day was spent at Lind, Washington, at the invitation of Dean Edward C. Johnson of the State College, in attendance at the first field day of the Adams Branch Experiment Station and the first annual picnic of the Adams County Farm Bureau.

Robert Prior, one of the largest sheep owners in Yakima, reports the sale of two lots of fine wool at Boston at 55 and 60 cents per pound. Mr. Prior was offered 35 cents for this wool by local buyers. Other sheep men who shipped on consignment to Boston firms expect likewise to sell at a much higher price than they were offered at local points earlier in the season. The sheep industry in Yakima is practically entirely a range proposition and the few farm clips are usually sold to one of the range men who buy pelts, wool, and sometimes lambs and breeding stock.







## WEEKLY BULLETIN

OF THE OFFICES OF

## WESTERN IRRIGATION AGRICULTURE

AND

# **DEMONSTRATIONS ON RECLAMATION PROJECTS**

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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#### WEEKLY BULLETIN

Of the Offices of

### WESTERN IRRIGATION AGRICULTURE and DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XVI.

July 26, 1919.

No.

### Western Irrigation Agriculture.

### Field Notes.

Huntley.

Due to the continued drought, it was necessary to start, during the latter half of the week ending July 12, the fourth irrigation of alfalfa, and the third irrigation of corn, cats, beets, and potatoes in the irrigated rotation plats. This will be the last watering of alfalfa before the second cutting and the last watering of this year's cat crop. Flax and wheat are ripening and need no more irrigating.

All beet plats were cultivated and hoed during the first part of the week. The potatoes are blossoming and the corn has commenced to put forth tassels.

## Demonstrations on Reclamation Projects.

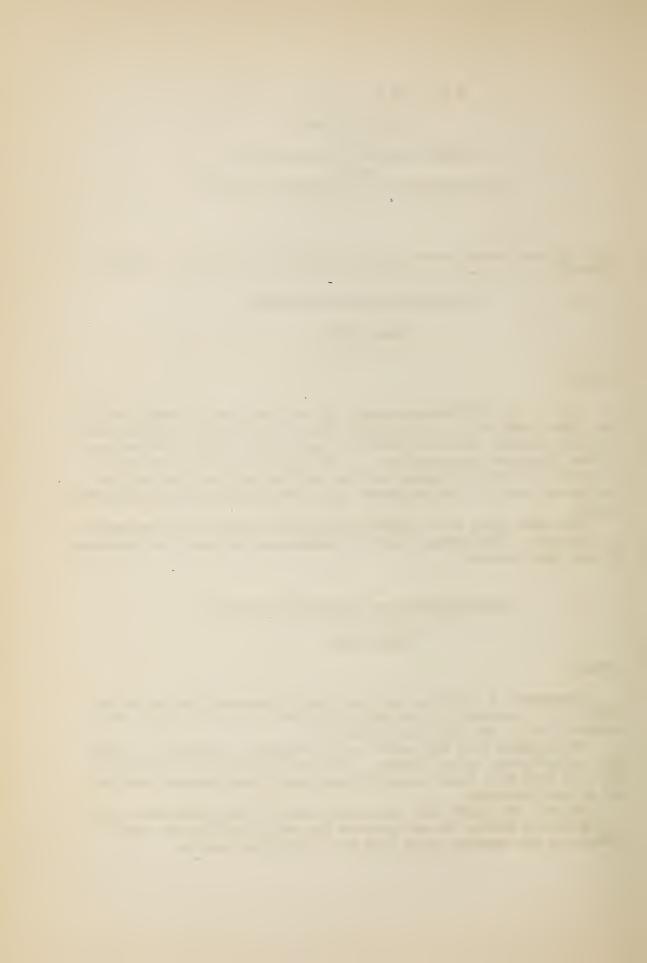
#### Field Notes.

Huntley.

Twenty-six farm vists were made and 14 requests for advice or assistance, including six relating to diseases of live stock, were received during the week ending July 12.

The returns from the car of cattle shipped to Omaha last week were satisfactory to the owners. One man stated that he received \$17.50 a head more than he was offered locally and another received \$14.00 per head more.

One day was spent with the county agent giving assistance with a feed survey having for its purpose the welfare of the dry land farmers of the county, being part of a state wide survey.



### Huntley (continued),

Work was continued on the live stock show, several owners receiving advice regarding exhibits.

Two days were spent in the office computing milk records and with other office routine.

The Wheatly Grange was addressed on Saturday evening.

#### Newlands.

During the week ending July 12, there were received twentysix calls for assistance and nine visits were made to farms in response to calls. One instance of the harmful effects in connection with the use of fly repellant, which is so widely advertised, has just recently come to notice. A rancher used two applications of fly repellant purchased at a local drug store, applying the fly repellant probably too liberally, with the result that the pores of the cow's skins were clorged and the animal was almost overcome with the heat during the very warm day. After the cow was well washed with cool soap suds, she soon re-This experience is in line with similar experiences with covered. fly repellant witnessed by the agriculturist. The danger from injudicious use of fly repellants is so great that the writer feels that the less they are applied to the animals the better off the animals are.

A meeting was recently held by the hay growers of the valley for the purpose of endeavoring to establish a uniform price for hay. Up to the present time, there has been no market and no price has been established. The local hay growers have decided to set a minimum price for the present of \$15.00 per ton in the stack until further investigation seems to make it desirable to raise or lower this price. A committee has been appointed to investigate the market conditions affecting alfalfa hay in the west. This activity has been instigated by the local farm bureau.

#### North Platte.

During the week ending July 12, sixteen farms were visited for general live stock work, seven of these being at the request of the owners. Two new cases of hog cholera were discovered this week and the herds vaccinated. There has been less trouble with cholera on the project this summer than there was last year.



North Platte (continued).

Assistance was given to one farmer this week in starting a pit silo in which he plans to put his corn crop which has been very backward this year and will not mature.

A conference was held with the county agent and Mr. Holden, Superintendent of the Experiment Farm, in regard to holding a farm picnic at the experiment farm on August 7 and a boys' encampment on August 4, 5, and 6.

Some work was done this week in preparing for the swine exhibit at the county fair this fall.

The weather here remains dry and hot but most of the crops are looking very good. The beet crop has improved greatly since it has been irrigated and promises to make a much larger yield than was expected a few weeks ago.

During the week ending July 19, eighteen farms were visited for general live stock work and six farms were visited at the request of the owners to investigate sickness among stock. Two herds of hogs were found to have cholera this week and were vaccinated with the single treatment. There is still some little trouble with hogs being poisoned with poisoned bran put out for grasshoppers.

General dairy work was done on six farms on the project this week, such as testing milk samples, keeping milk records, etc. One man was assisted in buying a pure bred Holstein bull this week and another in starting a silo in which to put this year's corn crop.

A conference was held this week with Mr. Holden, Superintendent of the Experiment Farm, and the Mayor and the Editor of the Mitchell Index, in regard to having the cooperation of the merchants of Mitchell in making the farmers' picnic at the experiment farm a success.

The high prices being paid for hogs are acting as an incentive for some of the farmers to remain in the hog business and increase the number of hogs on their farm and, if these high prices continue, this project will be back in the swine industry in another year much stronger than they have been during the past year.

The weather remains hot and dry here but the crops look very well. Some of the second cutting of alfalfa went into the stack

this week.



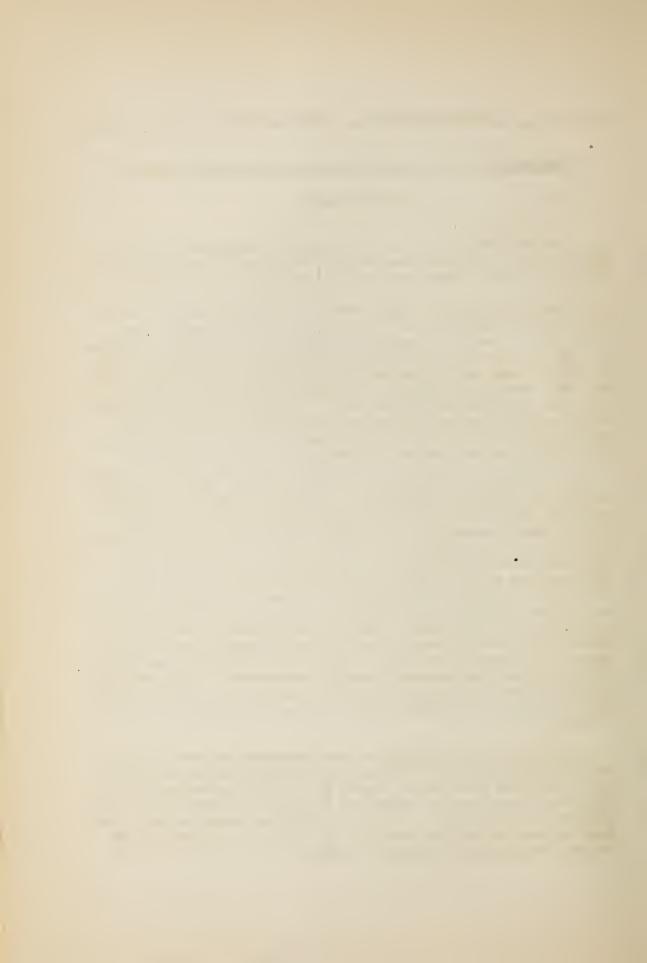
### Demonstration Work on the Umatilla Project During 1918.

## By R. W. Allen.

The work during 1918 was continued in accordance with the original plans, particular attention being paid to the proper development of the light soils of this district under irrigation.

Land development .-- Since there is no better means of accomplishing economical use of water and labor in irrigating sandy lands than by having it properly prepared for irrigation, particular care was taken to get the work of leveling, and other details of making ready for the use of irrigation water, thoroughly done. Care was exercised in laying out ditches to establish a grade of approximately 1/10 foot per hundred. Increased grade results in erosion of the bottom and sides of the ditches, and less grade does not deliver the water satisfactorily. When it is possible, the ditches are laid out on contour lines with drops and gates equal in width to the top of the maximum stream of water they are The importance of large and well constructed designed to carry. ditches is constantly emphasized. Frequent difficulty has been met with, particularly by inexperienced persons, in trying to conduct water through small and poorly made ditches. practice of having large main ditches and small laterals does not answer the needs of this district, and, accordingly, farm ditch systems of the same size throughout have been recommended. This becomes necessary to economize in water by keeping the irrigation head together and by conducting the entire stream to every part of the farm as needed. The use of concrete is usually recommended for structures such as drop boxes, check gates, and for shoots, or ditches, down steep slopes. It is less expensive than lumber and more durable when properly constructed. The provision of the Reclamation Service for selling cement to settlers at cost for use in land development favors the use of concrete for ditch structures.

Care in first irrigation. — The importance of care in the use of water, particularly during the first irrigations of newly prepared land, has had special attention. This is necessary to prevent the fields becoming rough from washing, and difficult to irrigate properly thereafter. Later irrigations become easier as the land becomes settled and growing crops bind the soil and protect its surface from water and wind erosion.



Demonstration Work on the Umatilla Project During 1918 (continued).

Seeding alfalfa and other crops. -- What is termed the fall season, August 1 to September 15, is the best time to sow alfalfa in this region and seeding at this time is strongly recommended. Rye sown from this time on until winter usually protects the ground well and makes it possible to sow alfalfa successfully in the spring. The drill is recommended for use in sowing alfalfa in order that the seed will be gotten at a uniformly satisfactory depth. Broadcasted seed frequently is not properly covered and much of it is lost from the surface soil drying out.

Use of straw to protect land. -- Straw is generally recommended, and is much used to protect newly graded land from the wind. The crop of rye grown on the project during the past year was very light. Extensive land development was undertaken with the result that covering material was not available for a considerable portion of it. This land was sown without protection and numerous failures of alfalfa have resulted from wind erosion.

Duty of water. -- Several lectures were given during the year emphasizing the influence of large and well constructed ditches, good structures, and properly prepared land upon the economical use of water. A number of observations were made of the amount of water required to irrigate land prepared for irrigation by border and other methods. The result was that the superior value of well prepared land in the border system was emphasized.

Grass pastures. -- Assistance was given a considerable number of farmers in the development and preparation of land, seeding, and minor details of establishing grass pastures. Conferences were held with numerous persons who anticipated sowing grass. The success of the few pastures on the project indicate that, under suitable conditions, first class grass pastures can be established here.

Eradicating brome grass. -- Several observations were made of the influence of different methods of cultivation upon the extent of eradication of grass (Bromus tectorum) from alfalfa fields. Since the first appearance of this grass, locally termed "Cheat grass", on the Umatilla Project, its spread has been rapid and general. It has covered the desert lands and become a serious pest and menace to alfalfa fields. It infests practically all alfalfa fields on the project. In many, it is so prevalent as



Demonstration Work on the Umatilla Project During 1918 (continued).

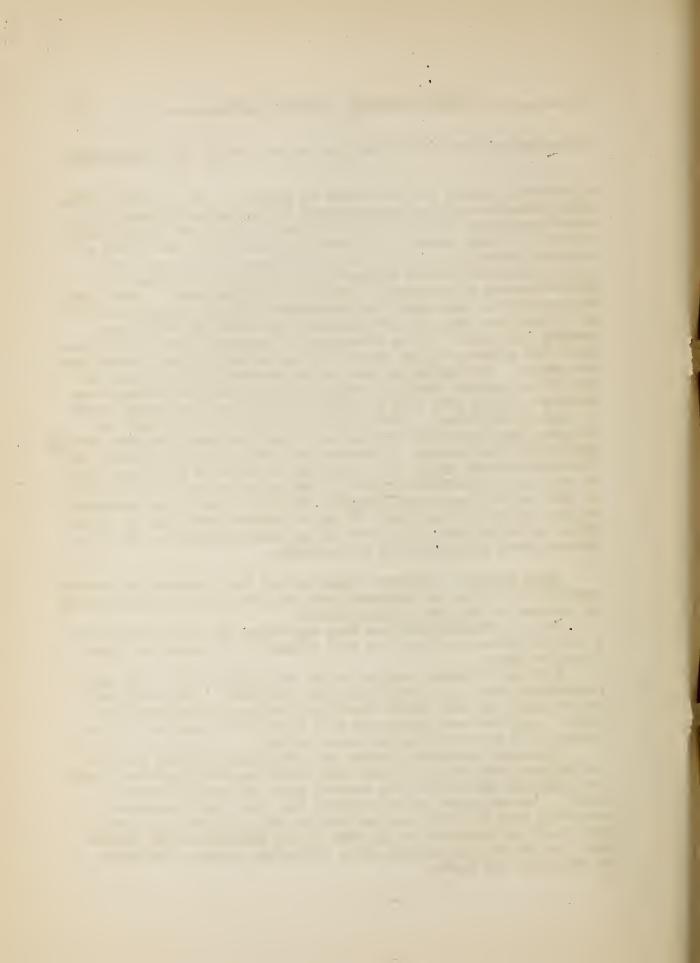
to seriously damage the first crop of alfalfa. It is of no particular consequence in subsequent crops of hay during the year. determination of the percentage of grass in the first crop of hay from eight fields showed that, where no cultivation was given, it comprised from 38.7 per cent to 55.6 per cent of the cured hay. Early cultivation of the fields with a springtooth harrow, the general method of treatment, left 15 to 47.1 per cent. Where late cultivation was practiced, the percentage of grass ranged from 1.7 to 5.1 per cent and, in each instance, the yield of alfalfa was greatly increased. It is generally believed that late cultivation, after the alfalfa is from two to six inches tall, greatly diminishes This might be true in the absence of this grass, but the yield. when it is present, the late cultivation was found to increase the yield of alfalfa over that in fields given early cultivation, only, to control the grass. The yield of alfalfa in clean fields was slightly less than that of grass and alfalfa in badly infested fields. From these observations, it appears that where alfalfa is badly infested with brome grass, late cultivation should be practiced, and it has been recommended for 1919. The grass can not be eradicated in this way but can be sufficiently reduced to render its presence in the hay unobjectionable. It can be further combatted by sowing grain in the alfalfa at the time of the last cultivation, for which purpose early maturing grain is necessary.

Minor topics. -- Frequent requests have been received for assistance in the control of crop pests and they were either taken care of or referred to the Agricultural College.

The use of windbreaks has been emphasized on every occasion to protect crops and buildings as many people do not appreciate their value for shade.

Specialized crops, such as melons and alfalfa seed, have been recommended where soil conditions were desirable. Melons do well on the finer and more highly fertilized soils and bring good returns. Alfalfa seed production is a favorable enterprise for the coarse soils where the duty of water is low.

Assistance was given farmers who anticipated growing corn in getting the best available seed from one of two varieties that have been grown on the project for several years and are of superior value. Encouragement was also given the older corn producers in selecting seed for their own use and to sell to their neighbors. The result of this work is apparent in the improvement and general use of a yellow dent variety and a white dent variety, the names of which are not known.



Demonstration Work on the Umatilla Project During 1918 (continued).

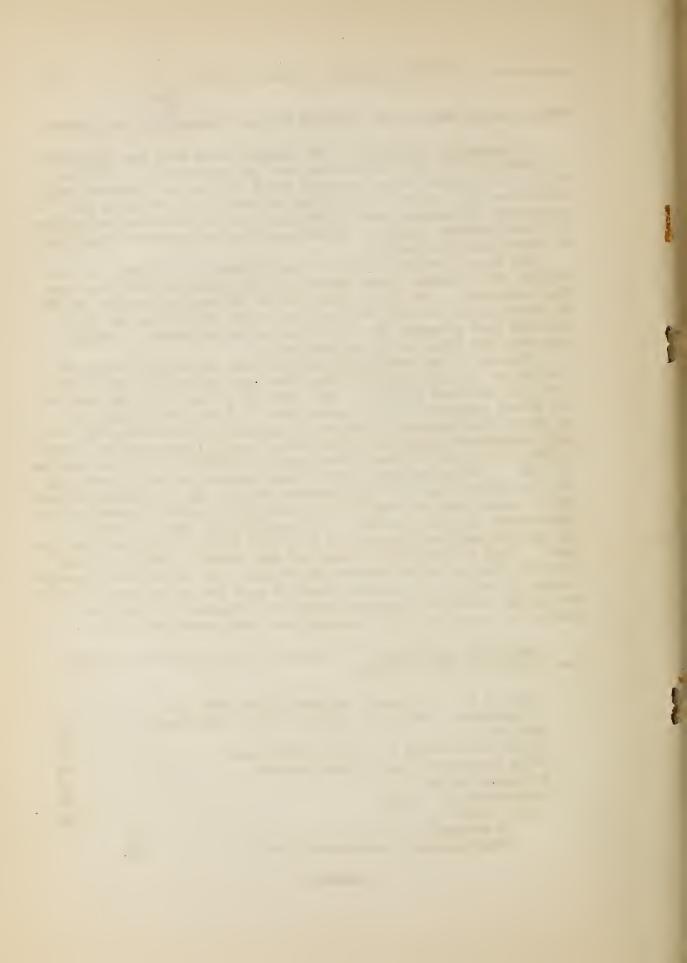
Influence of the work. -- The demonstration work has influenced the character of land development work as indicated by: (1) the wide use of border irrigation with large ditches and improved ditch structures, (2) large number of old alfalfa fields prepared for irrigation by borders, and (3) the greater care exercised in getting the land properly graded to insure rapid and satisfactory handling of water while irrigating.

The use of border irrigation has extended to all parts of the project and to almost every one of the 459 farms on which land has been developed. The 1918 census of the Reclamation Service, which is taken in the fall and early winter, shows an increase of 1,802 acres of land prepared for irrigation during the year. Development work was begun on 48 new farm units.

Reports of the Reclamation Service show the duty of water for the project to have been 6.19 acre feet per acre in 1917 and 5.29 acre feet per acre in 1918. This rise of .9 acre foot per acre is due to two principal reasons which are: (1) the more general use of border irrigation with larger and better farm laterals which result in more efficient use of the water, and (2) the rotation system of water delivery to farmers that has been adopted by the Reclamation The demonstration work among farmers is largely responsible for estabishing farm ditch systems of size and efficiency necessary to permit the delivery of large irrigation heads of water to the water users for short periods. Since 1910, the duty of water on the project has been raised from 10.2 adre feet to 5.29 acre feet per This is largely the result of the rotation system of water delivery adopted by the Reclamation Service, and by the better preparation of land for irrigation, together with the quite general use of the border system of irrigation that has succeeded the wasteful methods of furrow and wild flooding that were previously used.

Summary of activities. -- A summary of the activities for the year 1918 shows the following:

| Requests for assistance in laying plans for land   |     |
|--|-----|
| development, laying out ditches, ditch structures, |     |
| drains, etc.,                                      | 382 |
| Office conferences of miscellaneous nature,        | 84  |
| Field conferences aside from requests,             | 249 |
| Telephone calls                                    | 51  |
| Communications by mail,                            | 324 |
| Farm visits,                                       | 512 |
| On request, 380                                    |     |
| Miscellaneous, cooperators, etc., 132              |     |



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Vol. XVI.

August 2, 1919.

No.

## Western Irrigation Agriculture.

## Field Notes.

Huntley.

During the week ending July 19, the following temperatures were recorded: maximum, 102; minimum, 41.

The drouth and unusually hot weather continued during this period. While the supply of water for irrigation is decreasing steadily, the shortage is less seriously felt now since practically all of the grain on the project, which amounts to about 7,000 acres, has been given the last irrigation for the season.

The annual Huntley Project Picnic was held at the experiment farm on July 19. The attendance was estimated to be about 1,800 people. A new feature this year was a live stock show which included several excellent entries of horses, dairy cattle, hogs, and poultry. The Picnic association is planning to erect permanent buildings for the picnic and stock show on the park reservation adjacent to the experiment farm.

The fourth irrigation of alfalfa, and the third irrigation of oats, beets, potatoes, and corn, for the season, in the irrigated crop rotations, was completed by the middle of the week ending July 19.

The potatoes are in full bloom. The wheat and oats have commenced to ripen. The alfalfa will be ready for the second cutting the early part of next week.



Huntley (continued).

| Rotation 67. Field K Spring pigs on alfalfa and 2 per cent corn. |                                  |  |  |            |   |                             |                                       |
|--|----------------------------------|--|--|------------|---|-----------------------------|---------------------------------------|
| No.<br>of<br>Hog.  | No.<br>of<br>days                | Initial<br>Weight                            | Final<br>Weight                              | Gain       | Average daily gain.                           | P<br>Pounds<br>corn<br>fed. | Pounds<br>grain<br>per 1b.<br>of gain |
| 70*<br>72*<br>74*<br>95<br>123*<br>146<br>152<br>156             | 14<br>14<br>14<br>14<br>14<br>14 | 60<br>55<br>33<br>45<br>40<br>20<br>35<br>27 | 69<br>62<br>36<br>51<br>44<br>24<br>36<br>29 | 97366418   | .64<br>.50<br>.22<br>.43<br>.43<br>.29<br>.07 | 98 -                        | 2.6                                   |
| Total<br>Average   |                                  | 315<br>39.4                                  | 353<br>44.1                                  | 38<br>4.75 | 2.72<br>0.34                                  |                             |                                       |

| Rotatio                                  | n 69. F                                      | ield L-IV                                    | - Spring                                     | g pigs on  | alfalfa                                | and 2 | per cent | corn. |
|--|--|--|--|------------|--|-------|----------|-------|
| 73* -122* -124* -131 -150 -153 -154 -155 | 14<br>14<br>14<br>14<br>14<br>14<br>14<br>14 | 59<br>44<br>47<br>26<br>34<br>34<br>41<br>30 | 64<br>50<br>50<br>30<br>36<br>38<br>43<br>30 | 56348480   | .36<br>.43<br>.22<br>.29<br>.14<br>.29 | 98    | 3.7.     | 1     |
| Total<br>Average                         |  | 315<br>39.4                                  | 341<br>42.6                                  | 26<br>3.25 | 1.87                                   |       |          |       |

<sup>\*</sup> Grade Duroc-Jerseys; all others pure bred Duroc-Jerseys.

High temperatures prevailed during the week ending July 26 accompanied by hot winds. The maximum temperature was 102 and minimum 41. Such crops as corn and small grains that in ordinary seasons require only one or two irrigations have already been irrigated for the fourth time this season. Crops generally are in rather better condition than earlier in the season and fairly good yields of hay and grain are indicated. Sugar beets are in rather poor condition.

Threshing of dry land wheat was begun in the neighborhood. Winter wheat on fallow land is yielding from 4 to 8 bushels per acre.



### Huntley (continued).

The second crop of alfalfa was harvested and will give fairly good yields on the plats while, on the larger fields, the crop is short as a result of the shortage of irrigation water.

A committee of twelve farm bureau members from various parts of Yellowstone County were visitors at the experiment farm on July 26,

#### Newlands.

Report for two weeks ending July 19.-- The beets on E 7 were hoed and thinned. The barley varieties on F 14 and 15, and the wheat varieties on H 1 and 2, were harvested. All the corn plats were furrowed, irrigated, and cultivated. The second crop of alfalfa on all plats was cut. The yields of alfalfa on all plats were as follows:

|   |   |  | ·  |
|---|---|--|--|
| Plat  | Yield   | Area   | Yield per Acre.  |
| D - 3<br>- 4<br>- 7<br>- 8<br>F - 1<br>- 6<br>- 7                                   | 415<br>395<br>565<br>575<br>520<br>430<br>355<br>310<br>325                           | .34<br>.34<br>.51<br>.46<br>.25<br>.25<br>.25                        | 1,220.<br>1,160.<br>1,110.<br>1,250.<br>2,080.<br>1,720.<br>1,420.<br>1,240.<br>1,300.                       |
| -10<br>-11<br>-12<br>\$13<br>-14<br>H - 8<br>- 9<br>-10<br>-11<br>-12<br>-13<br>-16 | 165<br>155<br>260<br>440<br>450<br>1060<br>865<br>1140<br>1150<br>1295<br>1140<br>335 | 25<br>25<br>25<br>25<br>25<br>25<br>25<br>29<br>29<br>34<br>50<br>50 | 660.<br>620.<br>1,040.<br>1,760.<br>1,800.<br>3,655.<br>2,785.<br>3,930.<br>3,195.<br>3,010.<br>2,280<br>670 |



Newlands (continued).

| (Alfalfa yields continued) |            |   |                 |  |  |  |
|----------------------------|------------|---|-----------------|--|--|--|
|                            |            |   | Yield           |  |  |  |
| Plat                       | Yield      | Area  | per acre.       |  |  |  |
| H-18                       | 870        | - 34  | 2,560.          |  |  |  |
| -19                        | 485        | .3 <sup>4</sup><br>.3 <sup>4</sup><br>.3 <sup>4</sup><br>.29<br>.29 | 1,425.          |  |  |  |
| -20                        | 595        | .34   | 1,750.          |  |  |  |
| -21                        | 375        | .29   | 1,295.          |  |  |  |
| -22                        | 370        | .29   | 1;275           |  |  |  |
| -23<br>-24                 | 300<br>725 | .29   | 1,035<br>1,120. |  |  |  |
| -25                        | 325<br>140 | 29  | 485.            |  |  |  |
| Y-10                       | 500        | 45  | 1,110.          |  |  |  |
| -11                        | 000        | .45   | 0,000.          |  |  |  |
| -12                        | 150        | .45   | 335.<br>480.    |  |  |  |
| -13                        | 215        | •45   |                 |  |  |  |
| -14                        | 58         | .45   | 130.            |  |  |  |
| -15<br>-16                 | 135        | .45   | 300.            |  |  |  |
| -10<br>-17                 | 150<br>000 | 47  | 335,<br>000.    |  |  |  |
| -18                        | 105        | 29 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5                            | 235.            |  |  |  |
|                            |            |   |                 |  |  |  |

San Antonio.

The maximum temperature for the week ending July 19 was 97, minimum 71, and greatest daily range 24. There was no precipitation. All crops are in good condition except cotton which is being appropriated very largely to the use of the boll weevil.

Considerable labor was employed in weeding rotation corn and cotton, the cotton on C5 and C6 and B4, and most of the orchards. The Rhodes grass on B3 and B4 and the weeds and Johnson grass on waste land and oats stubble were mowed and the good hay hauled in. The crop of Rhodes grass was rather light, the stand having been reduced a good deal the past winter. This is the first cutting that has been made this year.

Orchards were cultivated and the cultivation of cotton finished. Whippoorwill cowpeas were planted on A5-13 and -17. The plowing and subsoiling of oat plats was finished.

The Salvia hispanica in the nursery was irrigated. It was wilting considerably and several plants were dying. There were



San Antonio (continued),

some indications that root rot might be the cause of this.

Counts were made of the plants dead from root rot in the rotation cotton. On plats that have usually had a high per cent of dead plants, many are dead or dying. The first dead plants were found on B5-3, June 20, just 50 days after planting.

The milo from the rotation plats was threshed. The yields were rather disappointing, the average yield being 30.7 bushels; the highest yield, 47.1, and the lowest, 17.4 bushels per acre. The bird damage was quite heavy on some plats, being estimated at 25 per cent on two plats and on no plat was it less than 3 or 4 per cent. The four highest yielding plats were in manured rotations.

#### Demonstrations on Reclamation Projects.

#### Field Notes.

Huntley.

Forty-one farm visits were made during the week ending July 19

and 33 requests for assistance were received.

Most of the requests for advice pertained to the live stock show which occurred Saturday at the Huntley Experiment Farm. Owing to the fact that the second cutting of hay came earlier than usual, some difficulty was experienced in getting farmers to take animals to the show, but classes of dairy cattle, hogs, horses, and poultry were exhibited. Professor McCord of the Montana Agricultural College was judge. In the cow class, a Jersey was given first place, second and third places being given to Holsteins. The general opinion is that the exhibits were creditable for a beginning.

One day was given to the county agent assisting with the feed

survey begun last week.

One dairyman was instructed in the use of the Babcock tester, and the operator of a creamery receiving station at Ballantine was also given assistance in learning to test cream.

Minidoka.

During the week ending July 5, there were received 109 office calls, 23 farm visits were made, and one meeting was attended at which the attendance was 30.



Minidoka (continued).

The wool for Minidoka County was sold during the week and a special report was made and forwarded to the Washington office.

During June, \$2,000. worth of stock was subscribed for a local cheese factory and the board of directors of this factory was elected this week.

Mr. Gustave Kunze, President of the Idaho State Dairymen's Association was present at the meeting for the cheese factory, as was also H. R. Lockry of the Western Office of the Dairy Division. With the help of these men, it is hoped that the cheese factory, once in operation, will have the good fortune to be started along the best lines.

During the week ending July 19, there were received 94 office calls, 13 telephone calls, and 8 farm visits were made.

During the week, the money for the wool pool was dispersed, everyone feeling that this enterprise had been one of the best things ever attempted on the Minidoka project.

Some time was spent looking over the bred heifers which had been distributed in Cassia County as a part of the Cassia County Calf Club. Several of the heifers have already had calves and everyone seemed well pleased over their purchase.

A \$600. Holstein bull arrived in Cassia County which will be owned cooperatively by five men who are members of the Cassia County Calf Club. This bull comes from Baird Brothers farm of Waukesha, Wisconsin, and is sired by a \$10,000. bull whose dam has a 1200 pound butter record for the year. The dam of the calf is also especially well bred having a 600 pounds butter record as a two-year-old. In making this purchase for the Minidoka project farmers, an attempt has been made to get away from the seven-day record and get a breeding with yearly records in the pedigree, as it is felt that this is the ultimate result of good dairy breeding, namely, yearly production.

Hay on the project is going up by leaps and bounds, contracts for hay now being \$20. as compared to \$13. and \$14. in the stack about one month ago. With this comes a keen interest in silos and undoubtedly more silos will be built this year as a result of the shortage in hay crop. One man was given help during the week in the building of a concrete silo.

Shoshone.

Mr. Magruder reports as follows:
"During the week ending July 19, two farm visits were made, 14
office calls were received and 1 other conference was held.



Shoshone (continued).

"Arrangements were made for the cooperative shipment of a car of sheep.

"Several farmers are talking of buying small bands of good ewes. Several of those who bought old ewes last fall were not satisfied with results and are planning to sell out and go out of the sheep business or buy small bands of good ewes.

"Some of those who bought old ewes are planning to cull their flocks closely. Last fall, I assisted farmers in buying old ewes, advising against buying unless they were well prepared to handle them and expected to stay in the business permanently. This year, I think that I shall advise only good ewes as handling old ewes is discouraging to the inexperienced men, and I believe the least profitable if he keeps them only one year as so many do here. Three days were spent en route to and from and at a conference of county agents from the north half of the state. The leaders stressed the importance and methods of organization of the county farm bureau. It seems that a farm bureau is especially valuable for a compaign such as for good roads, or for grasshopper control.

"Affairs of county wide significance are handled by an executive This committee is composed of a President, Secretary, Treasurer, and other members, each member representing a county wide project such as good roads, live stock production, or marketing. community has a Community Committee similar in organization to the county executive committee. When an executive committee member, representing any particular project, such as good roads, calls together those representing this project in the different communities, the committee thus formed is called a County Committee. Officials and other members of the Executive Committee or any Community Committee are not nominated in open meeting but are nominated by a nominating committee which is appointed by a temporary president who is suggest-The county agent assists the nominating ed by the county agent. committee. This method practically assures efficient officials and committee members as the open meeting usually elects from those nomi-Sometimes a meeting of those especially interested is called before the open meeting to discuss the selection of committee members.

"Since the state law has been passed preventing the turning of live stock into the public roads, a number of farmers have fenced the ditch banks along their land and are pasturing the enclosed areas with horses and cattle. The results are excellent as the stock do not bother the neighbors and pasture the banks much closer when they are not allowed to run loose."



Uncompahgre.

Eleven farm visits were made during the week ending July 12 and calls were received from seventeen sources.

A part of the week was spent in work with the pig club members on the project. There are about twenty-one members enrolled in this work. Some of them are not progressing on account of lack of leadership in the local community.

Requests were received from three farmers for information concerning grasshopper poison, which information was supplied.

One day was spent with the Delta County Agent in working on the live stock work in that county. An attempt was made to locate dairy cows for farmers interested.

Some work was done on the proposed live stock sale at the Western Slope Fair this fall.

There is a shortage of hog feed locally and farmers are using bran and shorts to keep their hogs growing until threshing begins, which will be soon.

Five farmers were visited during the week ending July 19 and calls were received from eleven sources.

The greater part of the week was taken up with a trip to Salt Lake City, Utah, where a conference was held with department men concerning information desired on project work.

Milk was tested for one farmer in regular monthly testing work. Threshing was started during the week on the lower end of the project. Much of the wheat has been cut.

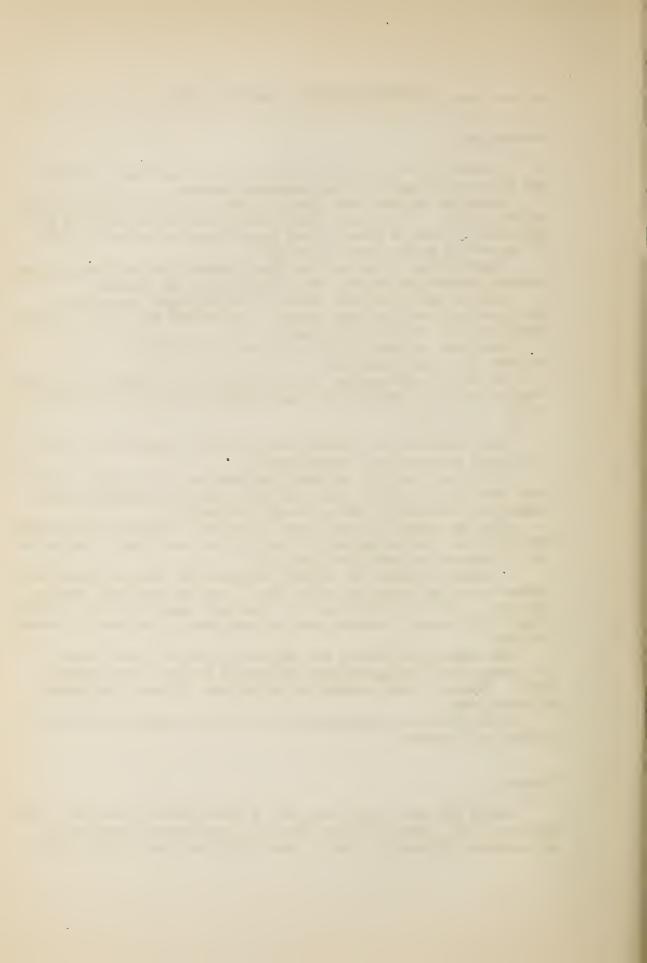
A campaign against the whorled milkweed has been on during the summer under the direction of Mr. May of the Colorado Agricultural College. Some effective work is being done along lines of eradication. This weed is causing much concern among stock men in Western Colorado.

The sugar beet growers are fighting a worm on their beets. The damage done, though slight, threatened to cause considerable loss. They are being controlled effectively by use of arsenate of lead spray.

Arrangements are being made for the Third Annual Corn Show at Olathe next December.

Yakima.

During the week ending July 12, 8 farms were visited and 3 conferences held. Owing to busy season of the farmers being on, it is somewhat difficult to get in touch with these men at all times.



Yakima (continued).

The farmers seem to be in an excellent state of mind and are looking forward to a prosperous year. Crops of all kind are in a first class condition and the outlook for high prices is very encouraging.

Nine farm visits were made and two conferences were held during the week ending July 19.

A trip was made this week to the lower part of the valley. The farmers in that section have completed their second cutting of alfalfa, which is said to be the best second cutting made in many years.

It is estimated that the Sunnyside district will alone have between four and five hundred cars of potatoes to market this season,

#### MISCELLANEOUS.

#### Personnel.

It is expected that Mr. A. C. Cooley will be appointed Agriculturist in Charge of Demonstrations on Reclamation Projects, effective September 16, 1919. Mr. Cooley is a graduate of the Utah Agricultural College, class of 1911. He served two years as county agent in the San Luis Valley in Colorado and has been, since 1914, Director of Extension in New Mexico, having organized that service.

According to present plans, Mr. Cooley will establish a temporary field office at Salt Lake City but the fiscal affairs of the Office of Demonstrations on Reclamation Projects will be handled in Washington as at present.

Until further notice, Demonstration field men will continue to send their reports and address their correspondence to the Washington office.

C.S.S.



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# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

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#### WEEKLY BULLETIN

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE and DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XVI.

August 9, 1919.

No. 6

#### Western Irrigation Agriculture.

Field Notes.

Huntley,

The second crop of alfalfa on the irrigated rotation plats and triangles was cut, raked, and cured during the week ending July 25.

Rape was seeded between the rows of corn in plats L-IV-26 and 27,

to be hogged-off this fall.

All potatoes were given their third cultivation and hilled with a winged shovel plow.

Beets, corn and potatoes were irrigated for the fourth time this

year.

The wheat and flax will be ready for harvesting by the middle of next week.

The weather continues extremely hot and dry, causing crops to grow rather slowly.

The hauling and stacking of the second cutting of alfalfa was finished July 28. The quality of the hay is excellent. Immediately after the removal of the hay all alfalfa plats and triangles in the irrigated rotation experiments were irrigated.

During the week ending August 2 there was a rainfall of 0.7

inches, which was a great help to all drops.

The two quarter-acre plats of flax in field K were cut and shocked July 31.

The rape seeded between the corn rows on the two quarter-acre plats in Field L-IV, to be hogged-off this fall, emerged July 30, with indications of a very good stand.



Huntley (continued)

## YIELDS OF ALFALFA IN THE IRRIGATED ROTATIONS, 1919.

| ROTATION NO.               | PLAT NO.  | POUNDS PER PLAT SECOID CUTTING  | TONS PER ACRE SECOND CUTTING   | AGE,<br>YEARS                   |
|----------------------------|---|---|--|---------------------------------|
| 677711160664944446 4444999 | K-II-1<br>K-II-2<br>K-III-6<br>K-III-7<br>K-III-7<br>K-III-8<br>K-III-12<br>K-III-12<br>K-IV-2<br>K-IV-3<br>K-IV-8<br>K-IV-9<br>K-IV-13<br>K-IV-13<br>K-IV-11<br>L-IV-12<br>L-IV-11<br>L-IV-15<br>L-IV-16<br>L-IV-17<br>L-IV-23<br>L-IV-24<br>L-IV-24<br>L-IV-24<br>L-IV-Tri. | 1035 Hogged-off *240 1030 515 *310 965 530 *205 *95 810 *285 850 *230 510 660 3180 3570 2270 1010 ** 465 1050 ***190 920 **290 Hogged-off 1125 **335 2685 | 2.07<br>.48<br>2.06<br>1.03<br>.62<br>1.93<br>1.06<br>.41<br>.19<br>1.62<br>.57<br>1.70<br>.46<br>1.02<br>1.32<br>2.17<br>2.11<br>1.43<br>2.02<br>.93<br>2.10<br>.38<br>1.84<br>.58<br>2.25<br>.67<br>2.31 | 2312312311212121288882143213212 |

<sup>\*</sup> Spring seeded; first time cut.

<sup>\*\*</sup> Fall seeded; reseeded this spring to increase stand.

\*\*\* Plowed up last fall by mistake.



#### Huntley (continued)

ROTATION 67. Field K. Spring Pigs on Alfalfa Pasture and Two-percent Corn.

| NO.OF<br>HOG                                  | NO.OF<br>DAYS                          | AVERAGE<br>INITIAL                           | WEIGHT<br>FINAL                              | GAIN                                 | AVERAGE<br>DAILY GAIN                         | CORN FED LBS. | LBS.GRAIN<br>LBS.GAIN |
|---|--|--|--|--------------------------------------|---|---------------|-----------------------|
| *70<br>*72<br>*74<br>95<br>*123<br>146<br>152 | 14<br>14<br>14<br>14<br>14<br>14<br>14 | 69<br>62<br>36<br>51<br>46<br>24<br>36<br>29 | 72<br>66<br>40<br>57<br>50<br>29<br>40<br>32 | 3<br>4<br>4<br>6<br>4<br>5<br>4<br>3 | .22<br>.29<br>.29<br>.43<br>.29<br>.36<br>.29 | , 9g          | 2.97                  |
| TOTAL,<br>AVERA                               |  | 353<br>44.1                                  | 386<br>45, <b>7</b> 5                        | 33<br>4.13                           | 2.39<br>.17                                   |               |                       |

ROTATION 69. Field L-IV. Spring Pigs on Alfalfa and 2% Corn.

| *73<br>*122<br>*124<br>131<br>150<br>153<br>154<br>155 | 14<br>14<br>14<br>14<br>14<br>14<br>14 | 64<br>50<br>50<br>30<br>36<br>38<br>43<br>30 | 68<br>53<br>55<br>35<br>37<br>41<br>46<br>34 | 4 3 5 5 <b>1</b> 3 3 4 | .29<br>.22<br>.36<br>.36<br>.07<br>.22<br>.22 | 98 | 3.5 |
|--|--|--|--|------------------------|---|----|-----|
| TOTAL<br>AVERA   | Œ                                      | 341<br>42.6                                  | 369<br>46.13                                 | 28<br>3.5              | 2.03<br>.145                                  |    |     |

<sup>\*</sup> Grade Duroc-Jerseys; all others pure bred Duroc-Jerseys.

San Antonio.

During the week ending July 26, the minimum temperature was 96; minimum 67, and greatest daily range 21. It rained every day during the week, the total precipitation being 5:59 inches. The total precipitation during July to date has been 7.51 inches. This has been exceeded only once in the last 29 years. The total precipitation in July, 1903, was 7.52 inches. No field work was possible during the entire week. Some labor was utilized in doing miscellaneous odd jobs about the grounds and buildings. The wet weather has delayed greatly the usual field work and it has been almost impossible to keep the weeds under control. Corn is ripening and so far continues to stand up well. Cotton has made an unusual vegetative growth. Boll weevils are very numerous in practically all cotton and the prospects are that only a light crop will be obtained.



### San Antonio (continued)

During the week ending August 2, the maximum temperature was 90, minimum 68, and the greatest daily range 22. The total precipitation was 0.47 inch. The long wet spell finally came to an end. The total precipitation for July was 7.61 inches, which is

the record at San Antonio for thirty years.

It was not possible to start field work until Thursday. The men were kept out of the flelds for nine days. Some early varieties of corn in the variety test were harvested. Fallow plats in the rotation experiments and other fallow fields were harrowed. Sorghum varieties on field C-4 were harvested. Some farm roads were weeded. Part of the orchards were cultivated. A good many peaches were picked.

Mr. Bryan left Saturday for a two weeks vacation.

Yuma,

During the week ending August 9, the following lands were irrigated: cotton, 7 acres; alfalfa, 15; sorghums, 5; nurseries, 2; garden, 2; grounds 1; fallow, 2; Sudan grass, 1; and roads 3.

Nurseries, garden, sorghum and cow-pea plats were cultivated.

Roads and borders were hoed,

The date lands, C-43 to 45, and the park lands on Series D, were disked.

The Whippoorwill cowpeas planted every third row in the cotton fertilizer test series A were turned under August 4.

Two men were kept busy during most of the week repairing

machinery and farm equipment.

Maximum temperature, 104; minimum 51 degrees; greatest daily range 51 degrees.



### Demonstrations on Reclamation Projects.

Field Notes.

Belle Fourche.

During the week ending July 19, twenty farm visits were made and one office conference was held. Parts of several days were spent at the Experiment Farm at Newell attending the Boys' Camp. There were sixty-eight very live boys at the farm from July 14 to July 19.

Two cooperative shipments of lambs were made from the project during the week. These were consigned to Omaha.

On the last day of the week the annual farm picnic was held at the Experiment Farm. A feature of the day was the splendid address on Cooperation of Farmers delivered by Director A. D. Wilson, of the University of Minnesota Extension Division.

During the week ending July 26 nineteen farm visits were made and ten office conferences held.

Two days were spent at Rapid City, South Dakota, attending a conference of Western South Dakota County Agents.

Two cooperative shipments of lambs were consigned to Omaha during the week and arrangements made to ship two cars of wool which had become a part of the wool pool. In one car of lambs there were nine contributors of from four to sixty-four lambs each.

A number of requests have been received regarding the supply of feeder hogs. Serum companies are especially anxious to get hogs from the project because of the freedom from cholera. The little publicity given to the project in the eastern part of the State regarding the quality of the feeder hogs produced here is producing splendid results. It is still hoped to get enough orders to make up a train and run a "Feeder-Hog Special" to points in Eastern South Dakota.

During the week ending August 2, twenty-one office conferences were held and six farms visited. A meeting of the purebred Duroc-Jersey breeders was attended and suggestions made relative to the first cooperative pure bred sale.

The first cooperative registered Duroc-Jersey sale will be held at Newell, South Dakota, September 27, 1919. The number of

hogs to be sold has not yet been determined.

The first project wool pool, containing 48,000 pounds of wool, was shipped Monday of this week to B. Harris & Co., St. Louis, Mo. This is the wool for which 57-3/4 cents a pound was bid and rejected. It is problematical what price will be received from consigning. Certainly it can be no less than what was offered by local buyers immediately after the pool decided not to accept the price offered. Local buyers had an opportunity to bid on most of the wool in this pool individually before the decision was made to consign. The price offered for the bulk of this wool was around 55 and 56 cents. One or two bids were as low as 54 cents. One local buyer left no stones unturned to break up the pool. Two of the leaders were selected and 58



Belle Four che (continued)

cents bid for their wool. These men accepted the price and withdrew from the pool. He had accomplished part of what he wished to do but he did not succeed in breaking up the pool as the remainder stayed in and eventually selected a shipping committee and consigned. A peculiar feature connected with the pool was that one of the leaders who withdrew from the pool and sold was the most vigorous promoter of the pool, but when he got his price he quit.

Four carloads of feeder hogs left the project for one Iowa feeder's lots during the week. Twenty cents per pound was paid for them f.o.b. cars at Newell. Numerous requests have been received for feeder hogs from the eastern part of South Dakota. This market has just opened up and within a few years no doubt will be a splendid outlet for feeder hogs. One request was received for twenty cars in one train.

The severe drouth was broken during the week, rain falling for two days. Much of the stock that was slated for early shipment will be held on the range for a few weeks longer. Sheep men especially were materially aided by the rain. Many of them would have been forced to go on an already overloaded market.

The rice of hay continues to stay around the \$20 figure.

Huntley.

During the week ending July 26 fifteen requests for assistance were received and 21 farms were visited. Two farmers were assisted in the purchase of bulls and information regarding a boar was secured for another. The cows in four herds were tested for butterfat. Advice was given in a number of cases of live stock diseases, autopsies being performed.

On Thursday afternoon the building in which Mr. Wright has his office was burned in a fire which destroyed the larger portion of the business portion of Ballantine. The fire started in a store next to the office from an unknown cause. Most of the Government property was saved.

The second cutting of alfalfa on the Huntley project is up to the average. Little hay is changing hands as yet, as farmers are asking a larger price than stockmen wish to pay. A few tons have been sold at \$18 and \$20 in the stack. Much range stock has already gone to market on account of drouth, and heavy shipments will be made during August. The Burlington railroad will furnish no more cars until after July 29, which means that 400 cars of stock will be loaded each week on that road alone. A heavy rain now might relieve the situation somewhat.

During the week ending August 2, thirteen calls for assistance were received, five of which related to disease difficulties and six to other live stock work. Two were requests for information about permanent pasture mixtures and seeding.

Several Shorthorn bulls are desired by men owning or farming



Huntley (continued)

80 acres or more and assistance was given in locating desirable animals and securing prices.

Conferences were held with Mr. Ballzel, the newly elected Superintendent of the Consolidated Schools, about boys' and girls' club matters, with the cheese maker at Ballantine, and with a representative of the Yellowstone Creamery, and with the Secretary of the Midland Fair Association regarding space for Huntley project exhibits.

Five cows were tested for butterfat.
An outbreak of mycotic stomatitis among a herd of registered Herefords was investigated. These animals were found to be affected, one very seriously.

A heavy rain fell over the whole of the project on Friday.

Minidoka.

During the week ending July 26, there were 92 office calls and 15 farm visits. Three meetings were attended, with a total attendance of 23. A number of office conferences were held.

Hay is now selling for \$20 per ton in the stack. a great deal of interest in silo construction. The corn crop is poor, which will handicap this work to some extent.

Considerable help was given during the week in the matter of the reorganization of the two fairs, one in Cassia County and one in Minidoka County. Approximately \$5000 has been appropriated by the two counties for fair work this year, and indications are that both fairs will be bigger and better than ever.

A conference of county agents was attended at Twin Falls on Monday, July 21, when plans for the future development of farm bureau organization were discussed.

During the week ending August 2, sixteen farms were visited and 105 office calls received. Three committee meetings were attended, consisting of the two fair boards and the cheese factory Two Government men were on the project--one to help in the development of the cheese factory and one regarding beet-top silage.

So far nothing very definite has been accomplished concerning the development of the cheese factory at Rupert, progress being retarded at present by the lack of a suitable site in Rupert for the factory.

Some time was devoted during the week to the selection of rams for the Southern Idaho Ram Sale at Filer, Idaho, to be held August 21 and 22. On account of the present drouth season some of the breeders of pure bred sheep are worried over the possible sale of their pure bred rams for range purposes.

Considerable interest in silage is being manifested on the project, although the corn crop is disappointing, the yield being estimated at not more than 15 tons per acre. There is one patch of sunflower silage which will yield between forty and fifty tons per acre of forage. If this crop is as satisfactory as reported



#### Minidoka (continued)

by various authorities in will have a great influence on the live stock feeding possibilities on the project. Mt. J. W. Jones, in charge of sugar beet investigation work at Salt Lake City, called during the week and gave some valuable information regarding the ensilage of beet tops. He suggested adding about 15% beet molasses to the sunflower silage at the time it is put into the silo. This seems a valuable suggestion and Mr. Meyer would be pleased to hear any comments as to the experience of others in this respect. Mr. Jones' idea in this matter is to increase the saccharine content of the silage which probably would have some beneficial results in improving the fermentation condition of the sunflowers.

#### Newlands,

The local hay growers had a well attended meeting on Tuesday of the week ending July 26 and decided definitely to organize a hay growers' association for the purpose of facilitating the marketing of alfalfa hay. There has been a considerable number of offers of \$14 per ton for hay in the stack, but no sales have been reported at this time at this price, although several lots of hay have been sold for \$15 per ton baled weights at delivery point. This price does not include the price of baling nor delivery.

At the farmers' meeting the past week Mr. Cline advanced the idea of holding a project sale at Fallon, perhaps at the fair grounds quarterly. This sale would include live stock, farm machinery, farm products, etc. The idea was well received by the farmers present. This quarterly project sale will take the place of the bureau of exchange, which was instituted when this office was first established on the project, and which had to be discontinued on account of the inability of using franked envelopes for this purpose. The local merchants have become interested in this quarterly sale and have agreed to do what they can to make it a success.

During the week ending July 26 there were received 25 calls for assistance and 18 farms were visited in answer to requests. Demonstrations were held in two cases for the treatment of sterility. One of the cases was a valuable cow that had not calved for three years. Assistance was rendered in the selection of one registered Holstein bull. Considerable time was devoted during the week to herd testing.

Vaccination against blackleg and anthrax has been practically completed for the spring and summer season.

#### North Platte.

During the week ending July 26, fourteen farms were visited for general live stock work, six at the request of the owners for treatment of sick stock. Three herds of hogs, in a locality where there has been no hog sickness this year, were found to have cholera and were vaccinated. One herd of 30 calves was vaccinated against blacklegat the request request of the onwer, after one of his calves had died of the disease.



#### North Platte (continued)

One-half day was spent during this week in planning a general dairy barn for one farmer and a combined ice and milk house for another farmer.

Some time was given to soliciting horses for the horse parade at the Farmers' Picnic at the Experiment Farm August 7. This horse parade will be held at the noon hour and will consist of draft mares, colts, and stallions.

Another man was assisted this week in selecting a registered Holstein bull from one of the local herds. This is the third registered dairy bull that has been bought this month to replace scrub bulls in local herds. The three bulls came out of local herds which have good milk records.

During the week ending August 2, a number of office calls were received from farmers having sick stock. Two herds of cattle were vaccinated against blackleg; one cow was treated for milk fever; two herds of hogs were vaccinated against cholera, and three other herds were treated for minor ailments.

Several of the men who will exhibit cattle at the County
Fair met this week and made final arrangements for the cattle
exhibit and the milk products exhibit, and for the tent and other
equipment for the sale of milk by the glass, and other matters
regarding the exhibit.

The milk route established by the Scottsbluff Creamery Co. some time ago, with the assistance of this office, has proved to be a success to both the farmers and the creamery company. During the past monththe company has paid \$3.00 per cwt. for milk at the farm and the farmers state that this is more profitable to them than selling butter-fat at the present price of 57 cents per pound.

The first good general rain on the project this season came this week and, aside from cooling the atmosphere, was of considerable benefit to the crops.

#### Shoshone.

During the week ending July 26, eleven farms were visited, 30 office calls were received, and four other conferences were held.

A cooperative shipment of one carload containing 244 sheep was made to Omaha during the week, three men cooperating in the shipment.

Returns have just been received on the two carloads of cattle and one car of sheep sold at Omaha July 16. Steers sold for \$6.50, \$7.25, \$9.00, and \$10.50. Cows sold for \$6125, \$7.00, \$7.50, \$9.00, \$9.50 and \$10.00; heifers for \$6.50 and \$7.00; calves for \$6.00; bulls for \$6.75 and \$8.75. Spring lambs sold for \$12.00, \$12.50 and \$16.50; ewes for \$5.25 and \$9.00; wethers for \$10.50 and \$11.00 and a buck for \$5.00



Shoshone (continued)

The expense of the shipment was 98 cents per cwt., not counting shrinkage, for the cattle, and 94 cents per cwt. for the sheep. This high expense was due to light loading made necessary by the warm weather.

Several farmers listed spring pigs for sale this week as stockers, so that the fall and winter movement of stock hogs is beginning. There is enough demand on the project for stocm hogs to take care of the supply for some time to come.

Wheat cutting is starting on the earliest wheat and hogs

will be turned onto the stubble.

An attempt is being made to sell some spring lambs and old ewes to Nebraska farmers for feeders. An attempt is also being made to get all the farmers who handle sheep to agree on one breed for the project. So far, the preference seems to be for the Rambouillet. The reason given for this is that they will make up in woll what they lack in meat, especially since the farmers on this project can not raise lambs early enough to make early maturity much of an advantage. Also, that females and registered rams can be sold to advantage to range men around the project and that this breed will herd well if the farmers wish to cooperate in sending sheep to the Forest Reserve.

Yakima.

During the week ending July 26, thirteen farms were visited; two office calls were received and one other conference held.

On Monday, 45 pigs with an average weight of 45-1/4 pounds, were weighed and turned in on a field of field peas at the farm of Mr. R. D. Lewis. On Friday, another herd of pigs belonging to Mr. Beddoe, were weighed and turned in on a field of peas. This latter herd, 75 in number, averaged 58 pounds per head. These two herds are the first to be turned onto field peas this season.

Twenty-five carloads of lambs were shipped during the week from the Yakima Valley to the Chicago markets. The week previous two train loads of lambs left the Valley for eastern markets. One herd, belonging to the Mabton Sheep Company, were well bred Hampshire lambs and were in excellent condition for the market.

Uncompangre.

Twelve farms were visited at the request of their owners and 13 calls received from various sources, during the week ending July 26. Seventeen samples of milk from three herds were tested for butterfat.

Two days of the week were taken up with Mr. W. A. Cochel, Field Representative for the American Shorthorn Breeders' Association. A trip was made to the range to look at Mr. Neales range herd. Mr. Cochel was here for the purpose of locating good shorthorn cows for buyers in the East. A part of the project shorthorns were priced at \$100 each, which seems to be right for good quality animals.

A meeting of the directors of the Bull Association was held

on Saturday with all of the members present.



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# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 16 1919

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#### WEEKLY BULLETIN

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE AND DEMONSTRATIONS ON RECLAMATION PROJECTS

| Vol. XVI. | August 16, 1919 | . No. 7 |  |
|-----------|-----------------|---------|--|

#### Western Irrigation Agriculture.

Field Notes.

Huntley.

All plats, roadways, and alleys in Field K and Field L-IV were weeded by hoeing and hand pulling, during the week ending August 9.

All oats in Field L-IV were cut and shocked August 4. Oats in Field K were cut and shocked August 9. The difference in the time of harvesting is due to the oats in Field K receiving their last watering a few days later than the oats in Field L-IV. Wheat in Field K was cut and shocked the same day as the oats.

The third crop of alfalfa is making a very rapid and thick growth and indications are that there will be a very good crop of hay for the third cutting.

During the week the maximum temperature was 96, the minimum 50, and the precipitation 0.7 inch. This rainfall was the first of any consequence so far during the season. The rain was followed by cooler weather which has tended to relieve the water shortage situation, and with many of the fields irrigated for the last time there should be no further difficulty from this cause during the remainder of the season.

Yields of second crop of alfalfa are given below:

FIELD A-IV.

| Plat No.   | YIELD   |   |  |  |  |
|--|---|---|--|--|--|
| 1 120 170  | Plat, lbs.  | Acre, tons  |  |  |  |
| A-IV-1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11 | 390<br>475<br>470<br>520<br>660<br>720<br>670<br>800<br>840<br>760<br>800 | .78<br>.95<br>.94<br>1.04<br>1.32<br>1.44<br>1.60<br>1.60<br>1.68<br>1.52 |  |  |  |



#### Huntley (continued)

Yields Second Crop Alfalfa Field B-VII.

| ***   | V:   | ~1.4   |
|---|--|--|
| Plat No.  | Plat, lbs.   | eld Acre, tons.  |
| B-VII-1<br>2<br>3<br>4<br>5<br>6<br>7<br>8<br>9<br>10<br>11 | 215<br>200<br>170<br>150<br>135<br>205<br>215<br>200<br>220<br>190<br>235<br>175 | 2.15<br>2.00<br>1.70<br>1.50<br>1.35<br>2.05<br>2.15<br>2.00<br>2.20<br>1.90<br>2.35<br>1.75 |
| C<br>B-IV<br>L-I<br>L-II<br>L-III<br>L-IV                   | elds C, B-IV, an<br>18,213<br>5,830<br>2,995<br>2,786<br>2,635<br>2,685          | 1.36<br>2.72<br>2.47<br>2.31<br>2.31   |

Newlands.

The following plats were irrigated during the two weeks ending August 2:

B-5, 6, 9, 10; D-5, 6, 7, 8; C-2, 3, 4, 5; A-1, 2, 3; H-3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 16, 20, 21, 22, 23, 24 and 25. The wheat varieties on Field H were threshed. These

varieties were planted in triplicate, each plat having an area of .022 acre. The yields obtained were as follows:

| Rank                                 | Variety   | Yield 1 2 3  |                                      |                      | Total<br>Yield                                       | Average<br>Per<br>Pounds                             | Yield<br>Acre<br>Bushels                             |
|--------------------------------------|---|--|--------------------------------------|----------------------|--|--|--|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8 | Bluestem, Little Club, Defiance, Dicklow, Bonora, Rieti, Ey Baart, Marquis, | 15.0<br>14.1<br>19.1<br>12.3<br>9.4<br>10.5<br>15.8<br>7.2 | 24.1<br>17.4<br>19.2<br>18.7<br>20.3 | 21.8<br>15.1<br>15.3 | 61.0<br>59.2<br>55.5<br>51.9<br>49.9<br>45.5<br>34.3 | 925<br>900<br>842<br>788<br>758<br>697<br>630<br>520 | 15.4<br>15.0<br>14.0<br>13.2<br>12.6<br>11.6<br>10.5 |



#### Newlands (continued)

The barley varieties on H-14 and 15 yielded as shown below:

| Rank   | Variety                                      | Y I :  | Total<br>Yield                               | Pounds  | Bushels                                  |   |
|--------|--|--|--|---|--|---|
| 3<br>4 | Coast, Trebi, Chevalier, Svanhals, Hannchen, | 79.0<br>61.8<br>67.6<br>48.1<br>54.4<br>36.8 | 80.4<br>72.7<br>57.4<br>71.1<br>59.6<br>31.3 | 159.4<br>134.5<br>125.0<br>119.2<br>114.0<br>68.1 | 1,060<br>910<br>845<br>806<br>770<br>460 | 22.4<br>19.0<br>17.6<br>16.8<br>16.1<br>9.6 |

The Coast has outyielded the other varieties nearly every year and is probably the one best adapted to the conditions on the Newlands Project. The Trebi has for three seasons yielded very high and ranks second in productiveness.

The grain yields on the rotation plats and on Series Y are given in the following table:

| Area Y I E L D                             |                   |  |  |   |  |  |  |  |
|--|-------------------|--|--|---|--|--|--|--|
| Plat No.                                   | Crop              | Area,  | Total,   | ·   | acre   |  |  |  |
|  |                   | Acres  | Pounds   | Pounds  | Bushels  |  |  |  |
| C-6<br>7<br>8<br>9<br>10<br>11<br>12<br>13 | Barley,           | 0.31<br>0.30<br>0.30<br>0.29<br>0.29<br>0.47<br>0.44<br>0.39 | 20<br>60<br>161<br>66<br>44<br>66<br>96<br>102 | 65<br>200<br>537<br>228<br>152<br>140<br>218<br>259 | 1.03<br>4.2<br>11.2<br>4.8<br>3.2<br>2.9<br>4.5<br>5.4 |  |  |  |
| D- 26<br>34<br>56                          | Wheat, " " " " "  | 0.32<br>0.50<br>0.58<br>0.59<br>0.57<br>0.54                 | 217<br>199<br>672<br>644<br>305<br>308         | 679<br>399<br>1160<br>1090<br>535<br>570            | 11.3<br>6.7<br>19.3<br>18.2<br>8.9<br>9.5              |  |  |  |
| F- 4<br>16<br>5                            | Barley,, " Wheat, | 0.26<br>0.26<br>0.26<br>0.26                                 | 135<br>122<br>117<br>43                        | 520<br>470<br>450<br><b>1</b> 66                    | 10.8<br>9.8<br>7.5<br>2.8                              |  |  |  |



#### Newlands (continued).

| -    |                    |          |      | Yield  | per Acre. |
|------|--------------------|----------|------|--------|-----------|
| Plat | Treatment          | <u> </u> | Area | Pounds | Bushels   |
| - 2  | Tile,gypsum,manure | 136      | .45  | 302    | 6.5       |
|      | Check              | 110      | .45  | 244    | 5.1       |
|      | Tile,gypsum,manure | 261      | .45  | 580    | 12.2      |
| - 5  | Tile,gypsum,manure | 177      | .45  | 394    | g.2       |
|      | Check              | 285      | .45  | 634    | 13.2      |
|      | Tile,gypsum,manure | 384      | .45  | 854    | 17.8      |
| - 7  | Gypsum, manure     | 556      | .45  | 1235   | 25.7      |
| - 8  | Check              | 472      | .45  | 1050   | 21.8      |
| - 9  | Gypsum, manure     | 546      | .45  | 1215   | 25.3      |

Two varieties of field peas grown in A-3 were harvested and threshed. These peas were grown in double rows 3-1/3 feet apart and 130 feet long. The area of each variety was approximately .03 acre. The yields obtained were as follows:

Yellow field, ...... 10.5 pounds, ..... 352 lbs. per acre. San Louis, ...... 7.2 pounds, ..... 241 lbs. per acre.

Yuma.

Crops in general on the Yuma Project are in a good condition. The harvesting of alfalfa seed was begun some time ago and, at present, several threshers are operating in different parts of the project. Common alfalfa seed is selling around 25 cents and Hairy Peruvian 32 cents per pound.

The cotton crop in the Yuma Valley this year looks very promising. Aside from a slight aphis attack, cotton has been generally free from any injurious insect or infectious disease. In some scattering localities, cotton has already reached the picking stage.

Many farmers have contracted their 1919 short staple crop at 30 cents per pound.

Grain sorghum fields are heading out well. A price of \$45. to \$55. per ton is expected for the 1919 crop.

During the week ending August 2, the following lands on the



Yuma (continued).

station were irrigated: Nurseries, garden, grounds, pasture, roads, alfalfa, dates, cotton varieties, sorghums, cowpeas, and soy beans.

Roads and borders were hoed; garden, nurseries, and various row crops were cultivated.

First year alfalfa in the fig orchard, Series C, plats 8-17, was harvested.

The surplus male palms in the date rows, plat A-21, were removed.

The maximum temperature for the week was 106, minimum 63, and greatest daily range 40.

#### Demonstrations on Reclamation Projects.

#### Field Notes.

Belle Fourche.

During the week ending August 9, four farm visits were made and six office conferences held.

Heavy rains the fore part of the week prevented travel over much of the project. Due to the frequent rains during the past two weeks, a general feeling of optimism pervades the ranks of the livestockmen of this section of the country. Cattle and sheep that were slated for early shipment either to market or to some winter quarters where feed would be available, will be held up several months and filled out considerably.

A large quantity of second cutting alfalfa was made practically worthless from exposure to two or three rains before being dry enough to put in the stack.

Conferences were held during the week with a number of shippers of feeder hogs and opinions solicited relative to the existing regulations and restrictions on shipments to adjoicing states. Sanitary Board regulations of these states insist on serum treatment before loading and they must be loaded direct from the wagons into the cars. The South Dakota Live Stock Sanitary Board has recently declared the Belle Fourche Reclamation Project and adjacent territory, cholera-free area. Since this state has officially recognized this section cholera free, it appears inconsistent that any restrictions on the movement of feeder hogs from this area should be necessary. The matter has been taken up with the Live Stock Sanitary Board and it is hoped to eventually have these restrictions



Belle Fourche (continued).

removed. The hardship it works on project farmers is heavy.

Huntley.

Twelve requests for information or assistance were received during the week ending August 9 and 18 farm vists were made.

The boys' and girls' club leaders in 5 localities were visited and conferred with respecting the present condition of the work. There is no Leader for the whole project now and the Agriculturist is cooperating as far as possible with the state and local leaders to carry the work through the year. A meeting of all the local leaders will occur on the 13th of August.

During the week, a deal was consummated by which the three newspapers printed on the Huntley project came into the ownership of one editor and, after September 1, the three will be made into one with the printing office at Ballantine. It is believed that a good paper will result and that there will be less difficulty experienced in getting essential information before the public.

On the 7th, a sale of 20 milk cows was attended at Billings. These animals were grade Holsteins and Shorthorns and the prices ranged from \$50.00 to \$147.50. Two farmers from Ballantine who had accompanied the Agriculturist did not buy as the few which were to be fresh soon sold for more than they were worth.

Several men were assisted in securing information about cows for sale on the project.

Newlands.

During the week ending August 9, twenty-five calls for assistance were received and four visits were made to farms. An article was contributed to the local papers concerning the community sale. Partial arrangements have been made for the use of the State Fair grounds located here for this sale. Considerable interest has been taken in the prospective sale. For the time being, the sale will be under the supervision of this office.

Considerable time was devoted during the week to herd testing. One herd averaging about thirty cows in milk all the time has been treated regularly by this office for over a year. During this time, the herd has had an average production of more than one pound of butter fat per cow per day for all cows tested. The owner of this herd has on hand a large number of fine heifers by a well-bred



Newlands (continued).

Guernsey bull and out of the cows that have been on test. These heifers will be freshening soon and show promise of greatly increasing the production of this herd.

A case of what is known as pig bed fever came to notice during A large Duroc sow gave birth to a litter of twelve the past week. pigs at about noon of one day, everything being apparently normal. The following evening she appeared very sick with a high fever and no milk for the pigs. The next morning, conditions were very much the same and the writer was called. The sows temperature at this time was 104 degrees and there was no milk for the pigs. The breast The sow showed signs of constipation. showed no congestion. this time, the sow was given one-half drachm of calomel and a cool water enema and was washed off with cool water. This treatment lowered her temperature and gave considerable relief. Following this treatment, the sow was given one teaspoonful of fluid extract of echinacea every hour for eight or ten hours. The sow showed rapid improvement after five hours.

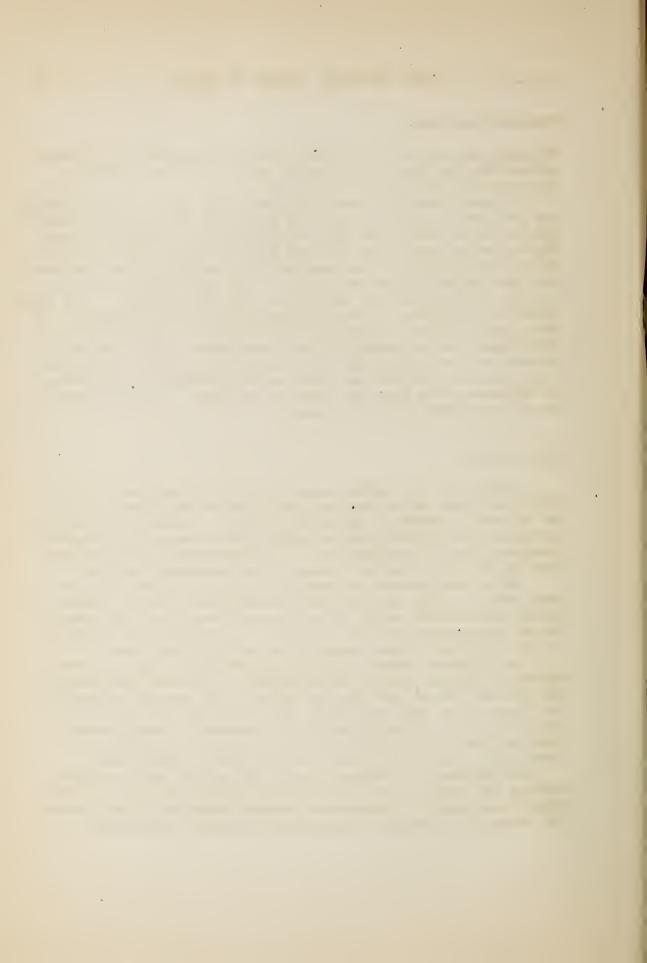
North Platte.

During the week ending August 9, the principal part of the first four days of the week were spent at the experiment station at the boys' encampment and farmers' picnic. Some assistance was given from this office towards making this encampment and picnic a success but the principal part of the arrangement and work was done by Mr. Holden and the others at the experiment station.

During the forenoon of each day of the encampment, the boys were given lectures and practical demonstrations on the outcome of experiments carried on by the station with crops and live stock; in the afternoons, the time was given over to games and swimming; and the evenings to band concerts and talks by local men.

The boys were under the direct supervision of the boy scout master of Mitchell during the encampment. Each boy furnished his own bed and dishes, made his bed on the thick layer of straw on the floor of the implement shed, and ate at the mess prepared by the cook and his helper hired for the occasion. About seventy-five boys were in attendance from all parts of the county and, according to their story, they had the "time of their lives".

On Thursday, the farmers' picnic was held at the experiment station and every farmer and his family within a radius of thirty miles was present. Stands were arranged about the grounds where ice cream, pop, lemonade, and sandwiches could be purchased.



North Platte (continued).

Various kinds of races for the children, which created considerable excitement, were held during the forencon. At noon, the large picnic baskets, ice cream freezers, and watermelons, were brought from the automobiles and wagons and furnished entertainment in the shade of the trees for the picnickers. Games and races for the "grown ups" were held during the forepart of the afternoon, followed by a horse parade, then speaking by Mr. Holden explaining the work of the station, and by Chancelor Avery of the State University. Dancing was the main attraction of the evening.

On Friday, several of the dairy farms of the valley were visited with Professor D. H. Propps, Dairy Extensionist from the State Agricultural College and, on Saturday, a large drove of hogs near Baird, which had cholera, were vaccinated.

Uncompangre.

Eight farm visits were made during the week ending August 2 and calls were received from twenty-one sources.

Alfalfa weevil has been found in project fields on Spring Creek Mesa, near Montrose. The state entomologist and three of his deputies were present at meetings at Delta and Montrose and discussed the situation with the farmers and advised regarding the shipment of hay from infested territory. The situation is alarming in that there is no known method of eradication. Control methods are practical, however, and are being successfully carried on in Delta County where the weevil has been under observation for several years.

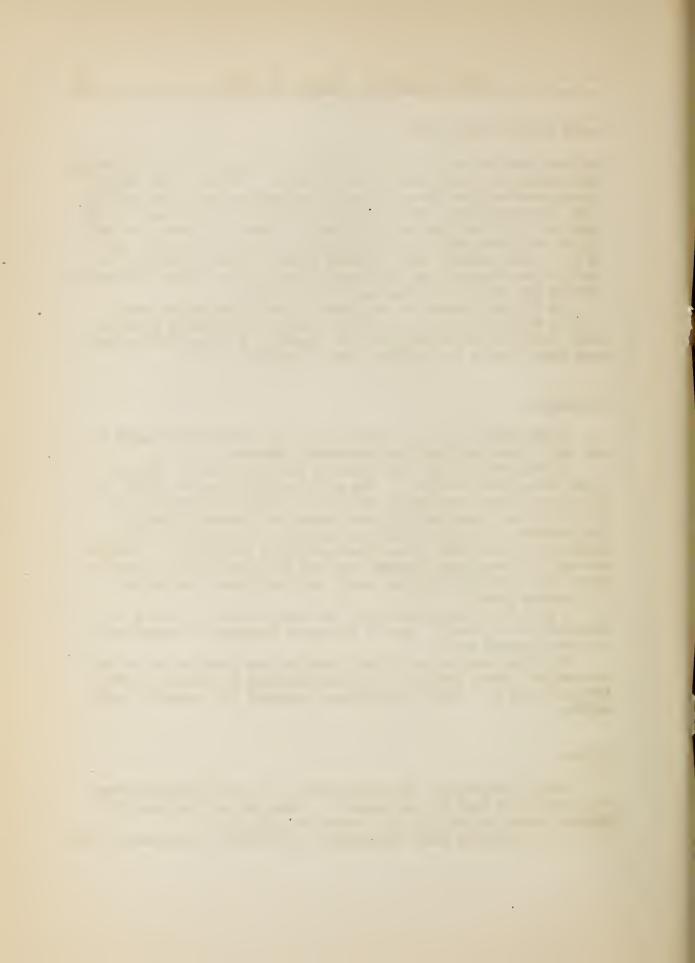
A pure bred Duroc-Jersey hog sale was attended at Delta on Saturday of this week. One of the local breeders is conducting his third annual sale.

The wheat harvest is in full sway and the yield is up to the standard of former years. The second cutting of alfalfa is more than half put up. Some showers have retarded the haying to some extent.

Yakima.

Twenty farm visits, two office calls, and one conference were held during the week ending August 2. Most of the work was of a general nature but will lead to something definite.

In visiting the farms throughout the project, considerable care



Yakima (continued).

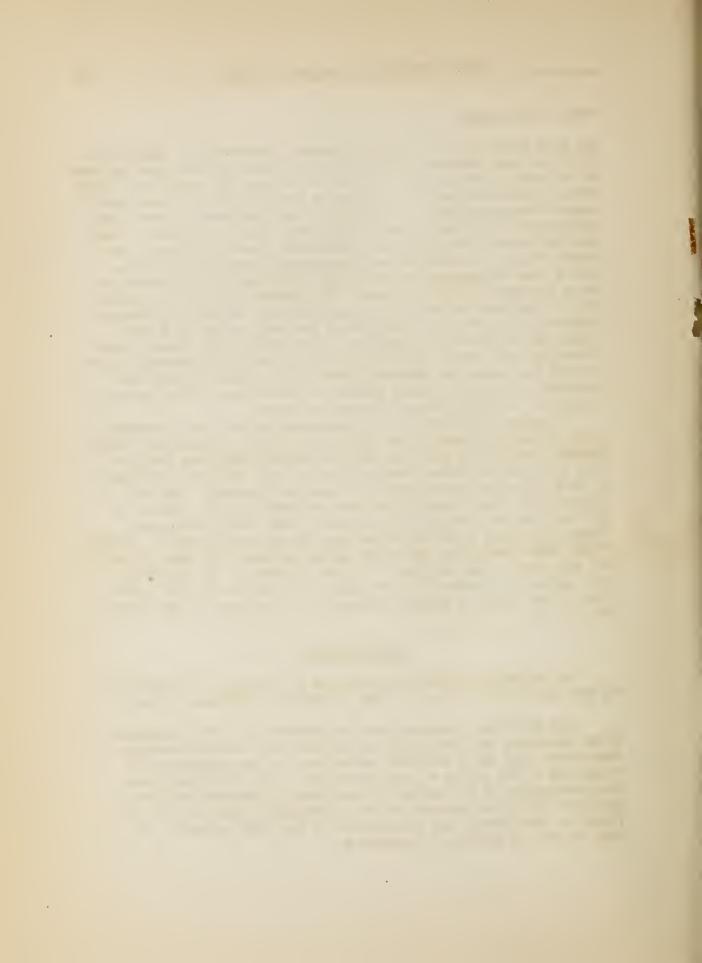
has been exercised to visit the farmers interested in dairying to a more or less degree. It is a very noticeable fact that the owner of dairy stock makes it a practice to keep his stock in a small corral throughout the year and but a very few make a practice of summer feeding silage. A plan is being formulated to make some investigation on the project to get some data, if possible, from the few farmers who are using a permanent pasture system. Frank Stewart, a prominent and successful farmer and dairyman, living near Sunnyside, was the only farmer visited this week who has a permanent pasture system. Mr. Stewart made the statement that it was more economical and satisfactory to have a permanent pasture than to feed the dairystock the year around in a small corral as is generally practiced. One farmer, Mr. Sprong, near Grandview, has stated his intention of beginning a permanent pasture and has asked for assistance from this office to begin the work with this fall or next spring, at which time, a few acres of land will be seeded down to permanent pasture.

A number of farmers of the Sunnyside project have expressed their desire of disposing of their dairy herds, stating that their reasons for selling were that hay and other feeds have been too high in price and labor shortage for the past two years has been so keen that the returns have not been satisfactory. On the Tieton unit, there seems to be some tendency for the farmers to go into the dairy business on a larger scale than in the past, though they have expressed themselves as not being ready to enlarge their herds until this winter or coming spring. We hope to keep all the cows on the project. If the dairymen of the Sunnyside unit expect to dispose of their herds, we hope to be able to keep them in the field by placing them with the dairymen of the Tieton unit.

#### Miscellaneous.

The attention of all the field men is invited to Circular 49 of the Secretary's office, a copy of which is reproduced below:

"The Secretary requests that, in connection with recommendations regarding the publication of articles in outside channels, the ribbon copy and a distinct carbon copy of the manuscript be submitted to the Office of the Secretary. This will facilitate the examination of the manuscript and make it possible for the editorial force to indicate on the ribbon copy, which will be returned to the Bureau, any corrections it may seem desirable to make before the article is published."





# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

AUG 23 1919

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#### WEEKLY BULLETIN

Of the Offices of

# VESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI. August 23, 1919. No. 8

### Western Irrigation Agriculture.

#### Field Notes.

Huntley,

The oats grown in field L-IV, and the wheat and flax grown in field K, were threshed August 11. The oats grown in field K will be threshed the first part of the coming week.

Fall-seeded alfalfa was drilled in the plats of oat stubble in field L-IV and K, August 12. It was found necessary to reseed five spring-seeded alfalfa plats in field K. These plats failed to produce a good stand due to the long drought that followed the spring seeding. Winter rye, to be plowed under next spring as a green manure crop, was drilled in the oat stubble in field K-V-20 plat.

All irrigated plats of beets and potatoes in fields K and L-IV were watered for the fifth time this season. Alfalfa plats and triangles in the same two fields were given their sixth watering for this season. The corn is maturing nicely and needs no more watering. It was necessary, however, to water the two corn plats in field L-IV, with rape seeded between the rows, for hog pasturing this fall in order to supply the young rape with plenty of moisture for continued growth.

Rotation 67. Field K .-- Spring pigs on alfalfa and 2% corn.

| No.<br>of<br>Hog.                                    | No.<br>of<br>Days                      | Initial<br>Weight                            | Final<br>Weight                              | Gain                                  | Average daily gain.                           | Pounds<br>corn<br>fed. | Pounds grain per 1b. of gain |
|--|--|--|--|---------------------------------------|---|------------------------|------------------------------|
| 70*<br>72*<br>74*<br>95<br>123*<br>146<br>152<br>156 | 14<br>14<br>14<br>14<br>14<br>14<br>14 | 72<br>66<br>40<br>57<br>50<br>29<br>40<br>32 | 82<br>73<br>44<br>65<br>56<br>34<br>43<br>32 | 10<br>7<br>4<br>8<br>6<br>5<br>3<br>0 | .72<br>.50<br>.29<br>.57<br>.43<br>.36<br>.22 | 99.6**<br>16.6***      | 2.70                         |
| Total  |  | 386<br>48.25                                 | 429<br>53.63                                 | 43<br>5.38                            | 3.09<br>0.22                                  | 116.20                 |                              |



Huntley (continued).

Rotation 69. Field L-IV .-- Spring pigs on alfalfa and 2% corn.

| No.<br>of<br>Hog.                 | No.<br>of<br>Days                            |  | Final<br>Weight                              | Gain        | Average daily gain.                           | Pounds<br>corn<br>fed. | Pounds grain per 1b. |
|-----------------------------------|--|--|--|-------------|---|------------------------|----------------------|
| 73* 122* 124* 131 150 153 154 155 | 14<br>14<br>14<br>14<br>14<br>14<br>14<br>14 | 68<br>53<br>55<br>35<br>37<br>41<br>46<br>34 | 75<br>59<br>64<br>39<br>40<br>43<br>51<br>38 | 76 94 30 54 | .50<br>.43<br>.65<br>.29<br>.22<br>.15<br>.36 | 85.2**<br>14.2***      | 2.49                 |
| Total                             |  | 369<br>46. <b>1</b> 3                        | 409<br>51.13                                 | 40<br>5     | 2.89  | 99.4                   |                      |

- \* Grade Duroc-Jerseys; all others pure bred Duroc-Jerseys.
- \*\* Shelled corn.
- \*\*\* Ground barley.

It became necessary to change the grain feed from shelled corn to ground barley, August 12, due to the fact that it was impossible to obtain any feed corn in this vicinity.

Newlands.

During the two weeks ending August 16, plats B-7, 8, and 11 to 22 were plowed, and the following fields and plats were irrigated: A; C; D; E-1, 2, 7, and 8; B-7 to 22, inclusive; Y; G; H-3, 4, 5, 6, 7, 16, 20, 21, 22, 23, 24, and 25. The corn, beet, and other plats were hoed and weeds were moved along roadways and ditch banks.

San Antonio.

During the week ending August 9, the maximum temperature was 96, minimum 68, and greatest daily range 28. The total precipitation was .17 inch.

Field work was possible throughout the week. Sorghum hay from the first cutting was hauled in. Sudan grass from the second cutting on plats A6-18 and B4-14 was raked, cocked, and hauled. Milo stalks in the rotation experiments were cut and plowing of milo plats started.



San Antonio (continued).

The following plats were plowed: A4-14 and 18; B4-16 and 19, and A5-2, 5, and 7. Sorghum varieties on C4 which were cut with the row binder last week were shocked. Weeds and grass in waste places, pastures, and roads were cut. Some roads were cultivated. Soil samples were taken in cotton plats in the rotation experiments.

Messrs. McNamara and Rose of the Office of Crop Acclimatization were visitors at the farm on August 3. Mr. E. B. Brown of the Office of Corn Investigations arrived at the farm on Saturday and will spend several days in making final notes and in harvesting his corn experiments.

During the week ending August 16, the maximum temperature was 96, minimum 71, and greatest daily range 25. There was no precipitation.

Plowing of milo plats in the rotation experiments was continued and completed, the following plats being plowed: A5-11; A6-1, 2, and 6; and B5-18. Plat A5-15 was plowed and subsciled. Part of field A3 on which field pea varieties were grown was plowed. Some time was spent in cultivating and grading the farm roads. Corn in experiments under the direction of the Office of Corn Investigations was harvested. Soil samples were taken on the corn plats in the rotation experiments. Some weeding was done in orchards and miscellaneous fields.

Mr. E. B. Brown spent a part of the week at the farm making final notes and in supervising the harvesting of the corn experiments. Mr. Letteer made a sixty mile trip southwest from San Antonio into Atascosa County. Excellent crops of corn and field crops were seen everywhere. For the most part, cotton is very poorly fruited and the yield will doubtless be light. On occasional field was seen which was much better than others.

#### Demonstrations on Reclamation Projects.

#### Field Notes.

Huntley.

During the week ending August 16, there were received 17 requests for assistance, five of which pertained to diseased animals. Thirty farm visits were made.

Considerable time was spent in assisting the local leaders of the boys' and girls' clubs get their work in hand. A meeting of all the local leaders was held at which September 13 was set as the date of



Huntley (continued).

the Ballantine Fair. Prizes and ribbons will be given for the 3 best exhibits from each club and the exhibitors will have board and lodging at the Midland Empire Fair paid by the Fair Association. They will also be privileged to enter the special contests held during the fair.

An address was made at a meeting of the Project Supply Company, Osborn, on cooperative shipping of live stock. A new manager has been selected and plans are being made to encourage owners to dispose of stock in this way.

#### Minidoka.

During the week ending August 9, seventy-seven office calls were received, 17 farm visits were made, and one group of circular letters numbering 44 were sent out.

During this week some time was spent on silo work and, in all probability, between six and eight silos will be constructed during August and early September. At present, it seems that there will be four different types; monolithic, concrete, wooden hoop, tunglok, and stave.

The cheese factory which is under process of organization has finally located a site and will commence collecting money for buying equipment.

Hay remains at \$20. per ton in the stack with very little buy - ing. There does not seem to be many stockmen purchasing hay on the Minidoka Project. At least 40 per cent of the hay is in the hands of speculators. One local concern states that they have shipped over one-half the sheep from the Minidoka Project to eastern markets as a result of the present hay situation.

Considerable time was given during the week to the revision of the fair list.

#### North Platte.

During the week ending August 16, eighteen farms were visited for general live stock work, seven of which were visited at the request of the owners.

Two siles were planned during the week and the work on them will be started in the near future so as to have them completed for this year's corn crop. Plans were also furnished from this office for a large dairy barn to be erected on the south side for a registered Holstein herd.



North Platte (continued).

Several farms were visited during the week at the request of the owners to diagnose ailments in hogs but there were no cases of cholera found.

Two farmers were given assistance in starting in to keep milk records and samples of milk were tested for them. The present price of butter fat paid by the local creameries is 55 cents per pound. Alfalfa hay is being sold in the stack for \$15. to \$18. per ton.

Shoshone.

During the week ending August 2, seventeen office calls were received and three other conferences were held.

Returns were received on a cooperative shipment of a car of sheep, as follows: Ewes sold for \$4.00, \$5.75, \$8.00, and \$9.00 per cwt.; lambs for \$12.00; wethers for \$5.00 and \$10.00; and bucks for \$4.00, \$5.00, and \$8.00. The expense of shipping was \$1.10 per cwt., not counting shrinkage. This high expense was due partly to light loading made necessary by the hot weather.

The board of directors of the Powell Cooperative Creamery met and decided to call a special meeting of the stockholders to consider selling the creamery. They decided that so long as everyone who is dairying here is dairying only as a side line, the creamery had better be in private hands. There is some inclination to convert the company from a cooperative into a private corporation so that those who are interested will buy out those who are not interested.

There have been some serious cases of bloating on one of the best mixed grass pastures here. The pasture has a little alfalfa and some alsike clover in it. Both dairy cows and sheep have bloated. The owner has tried both keeping the stock on the pasture all of the time and giving them a good feed of hay before turning them out in the morning.

One farmer sold his alfalfa hay this week to a sheep man for \$20. per ton in the stack and gets \$2. per ton for feeding and caring for the sheep.

During the week ending August 9, six farm visits were made, 8 office calls were received, and 25 other conferences were held.

A cooperative shipment of two cars of fat hogs was made to Denver, seven men cooperating in the shipment.

A visit was made by Mr. Magruder to the Huntley Experiment Farm. The Ballantine cheese factory and the Worden creamery were also visited about creamery management. The Worden creamery



#### Shoshone (continued).

gathers most of their cream with a truck, charging one cent per pound for gathering. They try to get all cream delivered so that it is not over two days old and they churn every day at about 4:00 p.m., so that it is on hand only a short while. As far as possible, the cream from the different farms is not mixed until they are ready to churn. The Worden creamery is paying 5 cents per pound more for butter fat than the Powell creamery is paying.

The Ballantine cheese factory does not gather milk but the cheesemaker thinks that it should since several men on the same road are delivering individually.

Wintering sheep was discussed with three Billings sheep dealers and they thought it probable that they could find men who would buy hay from project farmers and feed on the farm.

During the week ending August 16, three farm visits were made, 19 office calls were received, 11 other conferences were held, and one milk sample was tested.

Returns were received on two cars of hogs sold in Denver on August 11. Six hogs topped the market at \$21.80, but the large majority sold at \$21.65. Six heavy sows in fair condition sold for \$20.00 and 5 thin sows sold for \$18.00 per cwt. The shrinkage was 4.8 per cent, the fat hogs shrinking the most. The expense of shipping, besides the shrinkage, was \$1.28 per cwt., which made the total cost of shipping about \$2.25 per cwt. The hogs were shipped without unloading, being fed and watered in the car.

The alfalfa mill is paying \$20. per ton for alfalfa delivered at the mill.

A number of farmers are trying to sell alfalfa to stockmen who will feed on the farm. Several hundred tons have been sold this way already.

#### Uncompangre.

Fourteen farms were visited during the week ending August 9 and calls were received from twenty-one sources.

Mr. Dorman, in charge of the Western Office of the U. S. Dairy Division at Salt Lake City, was on the project two days during the week. During that time, the sunflower crops were examined and a number of dairy questions regarding individual farms were discussed.

The new agricultural agent for Montrose County, Mr. Ben King, arrived during the week. Two days were spent with him in assisting him in getting acquainted with the work in the county and in visit-



Uncompangre (continued).

ing the leading cooperators in the work.

A meeting of the County Commissioners was attended regarding the quarantine of the alfalfa weevil district in Montrose County. The infested area and a safety zone was outlined as the section to quarantine. A meeting of the Montrose County Farm Bureau was attended and assistance given in the outline of the work.

A meeting of the association for live stock protection was attended. This association has been in progress for six months and excellent results have been accomplished. It is necessary to make a few changes in the work for the remaining period of the year. Dr. Stout, of the Bureau of Animal Industry, was present and outlined the work of a similar association in the San Luis valley of this state.

Yakima.

Three farms were visited, three conferences held, and three days were spent in attending farmers' meetings and a picnic, during the week ending August 9.

The farmers' meetings held Monday and Tuesday were for the purpose of organizing the several farmers' organizations of the state into one organization with the idea of ultimately federal-On Monday and Tuesday, these meetings were attended by representatives of the several farmers' organizations from different parts of the state. On Wednesday was held the annual Yakima County Farmers' Picnic. The idea in mind was to furnish the general farmers' meetings with a picnic so that the representatives from the different parts of the state might become more closely associated with the local farmers of Yakima County. The representative from the Non-partisan League of North Dakota addressed the farmers on Wednesday afternoon. Dean Johnson of the State College and Mr. Scollard, President of the Washington State Dairymens' Association also addressed the meeting. The picnic was not as well attended as those in charge had hoped that it would be. The reason for the lack of attendance was that most of the farmers are extremely busy with fruit, hay, and other agricultural activities which were at their height at this time. There were only between two hundred and fifty and three hundred persons present.

Some time was spent Thursday in a conference with Mr. Scollard. The dairymen of the coast are quite well organized and are reaching out into the different parts of the state for the purpose of getting the dairymen to go into a statepwide organization for the purpose of bettering market conditions for the dairy product, particularly, whole milk. Mr. Scollard stated that considerably over 50 per cent



Yakima (continued).

of the milk produced on the coast is being used by the condensors and shipped to eastern points where it is marketed. At the marketing points, this milk must be marketed in competition with milk produced near these market centers. This, as he explains, means that the producer must stand the freight charges of this long distance. He also brings out the fact that less than one-fourth of the cheese and butter consumed in this state is made here. The remaining portion is shipped from other points. The dairymen on the coast are making a strenuous effort toward getting their milk produced there made into cheese and marketed locally instead or being condensed and shipped to eastern points outside the state. This seems to be a very practical move and plans are being formulated for the purpose of getting the milk producers of Yakima organized into a state-wide association.

#### Personnel.

Mr. H. A. Lindgren, Agriculturist for Reclamation Projects, stationed on the Uncompangre Reclamation Project, Colorado, has submitted his resignation effective September 30. Mr. Lindgren expects to take a position as live stock editor on a farm journal.

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# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

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|----------------------------|-----------|----------|----------|--|---|
| Vol. XVI. August 30, 1919. | Vol. XVI. | August 3 | 0, 1919. | No.  | 9 |

## Western Irrigation Agriculture

### Field Notes.

Huntley.

All irrigated rotation plats of oats in field K were threshed the first part of the week ending August 23. This finished the threshing of the grain in irrigated rotation work.

Stand counts were made of potatoes and sugar beets.

Manure was hauled and spread on the cat stubble plats. The fall plowing of the grain stubble plats was finished in field L-IV and a start made on the fall plowing of the grain stubble plats in field K.

The potatoes and sugar beets are growing quite nicely since the last watering and the corn has started to dent.

| OAT YIELDS, IRRIGATED ROTATIONS, HUNTLEY, MONTANA, 1919. |             |             |      |          |              |        |
|--|-------------|-------------|------|----------|--------------|--------|
| 7  |             |             |      |          |              | Bushel |
| Rotation   | ,           |             |      |          | Pounds Straw |        |
| Number   | Number      | & Straw per | Plat | per Plat | per Plat     | per    |
|  |             |             |      |          |              | Acre.  |
|  |             |             |      |          |              | 4)     |
| 61-A   | KIII-4      | 1375        |      | 515      | 860          | 64.37  |
| 60-A   | -10         | 1285        |      | 570      | 715          | 71.25  |
| 31-A   | -13         | 580         |      | 245      | 335          | 30.63  |
| 25 <b>-</b> A  | K-IV-6      | 880         |      | 435      | 445          | 54.38  |
| 42-B   | -10         | 1165        |      | 460      | 705          | 57.50  |
| 44-C   | -11         | 1070        |      | 435      | 635          | 54.38  |
| 30 <b>-</b> A  | <b>-1</b> 5 | 560         |      | 215      | 345          | 26,88  |
| 32-A   | -18         | 525         | ,    | 215      | 310          | 26,88  |
| 16-A   | K-V- 1      | 875         | !    | 400      | 475          | 50.00  |
| 22-B   | - 8         | 995         |      | 510      | 485          | 63.75  |
| 24-A   | <b>-</b> 9  | 720         | ,    | 335      | 385          | 41.56  |
| 23-B   | -16         | 910         |      | 385      | 525          | 65.63  |
| 27 -A  | -20         | 465         |      | 185      | 280          | 23.13  |
| 1-A  | -21         | - 400       |      | 175      | 225          | 22,50  |
| 1-a-A  | L-LV-1      | 835         |      | 460      | . 375        | 57.50  |
| 34-C   | -2          | 1310        |      | . 550    | 760.         | 68.75  |
| 35 <b>-</b> C  | <b>-</b> 6  | 1410        |      | 665      | 745          | 83.13  |
| 46-A   | -13         | 1400        |      | 480      | 920          | 60.00  |
| 64-c   | -18         | 1170        |      | 610      | 560          | 76.25  |
| 69 <b>-</b> C  | -25         | 1300        |      | 590      | 710          | 73.43  |



Huntley (continued).

| FLAX YIELDS, IRRIGATED ROTATIONS, 1919. |  |  |           |                          |                                 |  |  |
|---|--|--|-----------|--------------------------|---------------------------------|--|--|
| Rotation<br>Number                      |  | Total Pounds Grain<br>& Straw per Plat |           | Pounds Straw<br>per Plat | Bushel<br>Grain<br>per<br>Acre. |  |  |
|   | K-II-4<br>KIII-6                         |  | 219<br>19 | 391<br>61                | 15.60                           |  |  |
|   | WHEAT YIELDS, IRRIGATED ROTATIONS, 1919. |  |           |                          |                                 |  |  |
| 18-B                                    | K-V- 4.                                  | 895                                    | 410       | 485                      | 27.30                           |  |  |

San Antonio.

During the week ending August 23, the maximum temperature was 98, minimum 69, and greatest deily range 27. Heavy rains fell generally over the region the latter part of the week, the total precipitation at the station being 1.51 inches. Some cotton is being picked in the region but picking and ginning is not yet general. In the immediate vicinity of San Antonio the cotton is very poor. A fair cotton crop is reported from the West Gulf Coast region.

Plowing was continued throughout the week whenever weather conditions permitted. Plowing of field D3 was started. Alleys in the rotation experiments were cultivated and weeded. Orchard E3 was weeded. On account of wet weather, a good deal of time was spent in miscellaneous work.

Yuma.

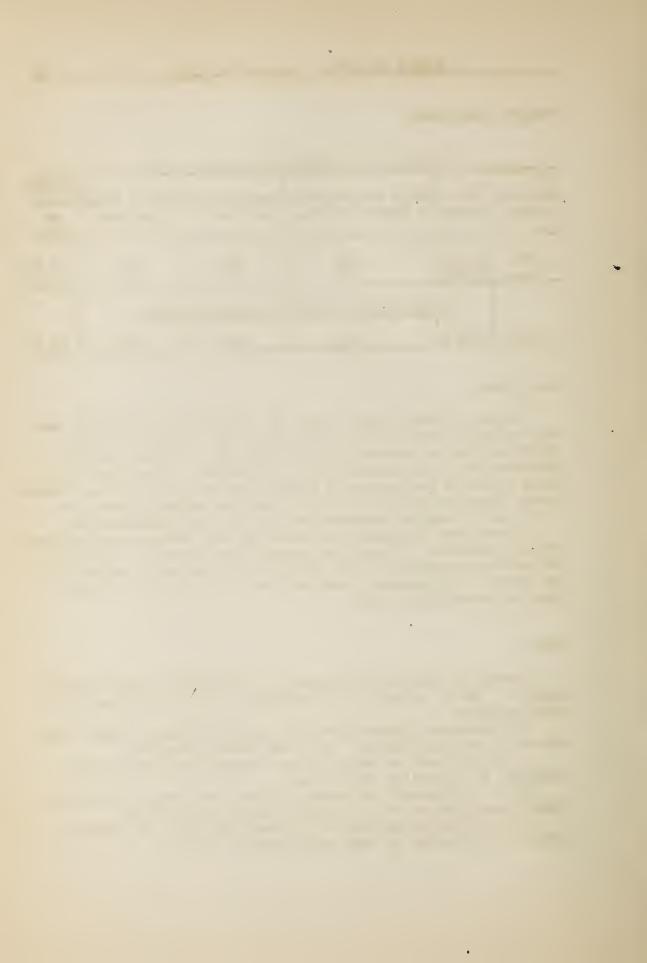
During the week ending August 16, the following lands were irrigated: dates, alfalfa, figs, deciduous orchard, sorghum, and stock pastures.

All row crops (except cotton and grain sorghums), garden, and nurseries were cultivated. Roads and borders were hoed.

A .44 inch rain on August 15 has stopped all alfalfa seed threshing in the valley for a while.

Mr. T. H. Kearney, in charge of Alkali and Drought Resistant Plant Investigations, was a station visitor on August 11.

The maximum temperature for the week was 112.5, minimum 55, greatest daily range 49, and precipitation .44 inch.



## Yuma (continued).

The aphis which has been doing some little damage to late cotton in various parts of the project seems to have been checked by the rain on August 15. The Tuxtla and Kekchi progenies on the station were sprayed with a Blackleaf 40 solution. Arrangements were being made to spray all of the Lone Star cotton in the fertilizer test series A, plats 1 to 9, but the rain seemed to have checked the aphis.

Messrs. S. H. Hastings, A. R. Leding, and R. L. Taylor of the Sacaton station visited the farm on August 19.

## Demonstrations on Reclamation Projects.

#### Field Notes.

Belle Fourche.

During the week ending August 16, twenty-one farm visits were made and ten office conferences held.

Arrangements were partially completed for the first registered Duroc-Jersey sale on the project. This will be a cooperative proposition. Five or six farmers will contribute to this sale. From present indications, about forty head will be put on sale.

During the week, final arrangements were made in the selection of a county agent. Mr. W. F. Kumlien, now employed in this capacity in Lawrence County, South Dakota, an adjoining county, has been selected to take the work in Butte County. Mr. Kumlien has a splendid record of achievement in Lawrence County and ranks with the first five county agents in the state.

#### Huntley.

The fore part of the week ending August 23 was taken up with matters relating to the contemplated purchase of Shorthorn bulls and heifers by a number of farmers and a meeting has been called for September 1 at Osborn.

A number of pig and sheep blub members were visited and advised as to feeding.

Four herds were tested for butter fat and, in two cases, assistance was given with feeding questions.

Notice was received that a Bureau of Animal Industry veterinarian will arrive Monday to give the tuberculin test to cows on the project. The owners of about 10 herds are trying for the accredited list, and,



Huntley (continued).

besides these, there are about eighteen who wish the test given as provided for by the state law.

In all, there were received sixteen requests for assistance and thirty-one farm vists were made.

North Platte.

During the week ending August 23, thirteen farm visits were made for general live stock work, seven of these being at the request of the owners either for stock sickness or farm buildings. Two cases of hog cholera were treated this week, in two quite large herds. This disease has not appeared in as many herds so far this year as last year and the disease has not been confined to so small an area as last year.

Two pit silos which were started a short time ago are completed and the machinery is now here for siloing the corn crop. Two more pit silos on the project were started the past week. Because of the cost, most of the farmers wanting silos prefer the pit silo.

In spite of the dry year, reports from over the project on the yield of grain and hay are very encouraging. Most of the wheat has yielded from 15 to 40 bushels per acre; oats from 30 to 100 bushels, and the alfalfa hay is fully as good as in any of the previous years. Some of the farmers already have the third cutting of alfalfa in the stack now so they will get a fourth cutting this year.

Shoshone.

During the week ending August 23, six farm visits were made, eleven office malls were received, and ten other conferences were held. Newspaper articles concerning value of skim milk, treating hogs for worms, and shipping hogs, were written.

Several sheep and cattle men from the range are trying to buy hay on the project and several farmers are looking for men who will buy their hay and feed it on their farms. One farmer this week sold hay from one field for \$20.00 per ton and threw in the pasture on that field, and sold the hay from another field without the pasture for \$18.00 per ton. The alfalfa mill is paying \$20.00 delivered at the mill.

An outside buyer and Mr. Magruder visited several farmers who have listed milk cows for sale. No deals were made at the time but several likely will be made. There seems to be a tendency to



Shoshone (continued).

limit the milk cows to the number required to provide dairy products for the family. This usually leaves little surplus and the Henningsen cream station gets a large part of this by receiving cream at any time, by paying for it when delivered, and by being located more conveniently than the creamery.

The stockholders seem to be divided as to whether or not to sell the creamery. One man advocates running the creamery as long as it will pay and then closing it down and keeping it as a protection to the business. Another advocates leasing it in such a way as to keep it under the control of the company. Still another advocates hiring some experienced creamery man to visit the creamery occasionally as a check on the employees.

Uncompangre.

Ten farm visits were made during the week ending August 23 and calls were received from fifteen sources.

Some time was spent with the county agent in the interest of an association at Olathe for the employment of a veterinarian. It is the plan to secure one hundred members in the Olathe section and establish a veterinarian at that point. The two men will then divide the membership and each handle one hundred and fifty.

It is to be recommended to the annual association meeting that the dues be raised from \$12.00 to \$18.00 per year. It was found that \$12.00 is insufficient to pay expenses.

A trip was made with two project farmers to look at a herd of Holsteins offered for sale. There were four pure bred and ten grades offered. It has not been decided as yet whether the farmers will purchase them.

A request has been received from local men to assist in the selection of \$3,590. worth of sheep for the state reformatory. The purchase will be made at the Salt Lake Ram sale. Further assistance was given to the county agent in Montrose county in the matter of learning the conditions of the territory.



Yakima.

During the week ending August 16, nine farm visits were made and three office calls and two conferences were held.

On Monday, meetings of the members of the state fair board and committees appointed by the president of the board were attended. The purpose of these meetings was to arrange plans for livestock and agricultural exhibits to be made at the state fair to be held in Yakima, September 15 to 20.

Probably the most important work of this week was in assisting Mr. Marks in purchasing six head of pure bred Holstein heifers. Mr. Marks sold the larger part of his herd last year but has decided to enlarge his herd again. This purchase was made from W. H. Harrison of Sunnyside. Mr. Marks is buying nothing but pure bred livestock, namely Holstein, for his farm here at Wiley City.



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# WEEKLY BULLETIN

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BUREAU OF PLANT INDUSTRY

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#### Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI. September 6, 1919. No. 10

## Western irrigation Agriculture.

## Field Notes.

Huntley.

Fall seeded alfalfa in oat stubble plats emerged August 25 with indications of a good heavy stand. Winter rye, seeded in oat stubble, to be used as a green manure crop, emerged the same day as the fall seeded alfalfa.

The third crop of alfalfa for this season will soon be ready for cutting. The growth of this crop has been remarkable and it will make a good yield of a fine quality hay.

The potatoes and beets are making a normal growth and will need but one more watering for this season, which will be given this coming week.

The weather has been somewhat cooler during the week ending August 30 than for the past three months.

| Rotation 67. | Fie  | ld K                 | Spring                | pigs on | alfalfa    | and 2% b | arley.  |
|--------------|------|----------------------|-----------------------|---------|------------|----------|---------|
|              |      |                      |                       |         |            |          | Pounds  |
| No.          | No.  |                      |                       |         | Average    | Pounds   | grain   |
| of           | of   | hitial               | 1                     |         | daily      | barley   | per 1b. |
| Hog.         | Days | Weight               | Weight                | Gain    | gain.      | fed.     | of gain |
|              |      |                      |                       |         |            |          |         |
| 70*          | 14   | 82                   | 94                    | 12      | .86<br>.86 |          |         |
| 72*          | 14   | 73<br>44             | 85                    | 12      | ,86        |          |         |
| 74*          | 14   |                      | 48                    | 4.      | ,29<br>,86 |          |         |
| 95           | 14   | 65                   | 77                    | 12      |            |          |         |
| 123*         | 14   | 65<br>56<br>34<br>43 | 77<br>67<br>38<br>45  | 11      | .79        |          |         |
| 146          | 14   | 34                   | 58<br>11 <del>0</del> | 4       | .29        |          |         |
| 152          | 14   |                      |                       | 2       | .14        | 326 5    | 2.04    |
| 156          | 14   | 32                   | 37                    | 5       | .36        | 126.5    | 2,04    |
| Total        |      | 429                  | 491                   | 62      | 4,45       |          |         |
| Average      |      | 53.63                | 61.38                 | 7.75    | 0.56       |          |         |
|              |      | ارن.رر               | 01.70                 |         |            |          |         |



Huntley (continued).

| Rotation 69. Field L-IV Spring pigs on alfalfa and 2% barley |  |  |  |                               |   |               |                              |
|--|--|--|--|-------------------------------|---|---------------|------------------------------|
| No.<br>of<br>Hog.  | No.<br>of<br>Days                            | Initial                                      | Final<br>Weight                              | Gain                          | Average<br>daily<br>gain.                   |               | Pounds grain per 1b. of gain |
| 1108.  | Days   | MOISIL                                       | Weight                                       | Galli                         | gain.                                       | <u> </u>      | or garin                     |
| 73* 122* 124* 131 150 153 154                                | 14<br>14<br>14<br>14<br>14<br>14<br>14<br>14 | 75<br>59<br>64<br>39<br>40<br>43<br>51<br>38 | 82<br>62<br>61<br>43<br>43<br>42<br>55<br>41 | 7<br>-3<br>-4<br>3<br>-1<br>3 | .50<br>.22<br>22<br>.29<br>.22<br>07<br>.29 | 119 <b>.7</b> | 5.99                         |
| Total  |  | 409  | 429  | 20                            | 1,45  |               |                              |
| Average  |  | 51.13  | 53.63  | 2.5                           | 0.18  |               |                              |

\* Grade Duroc-Jerseys: all others pure bred Duroc-Jerseys.

San Antonio.

During the week ending August 30, the maximum temperature was 94, minimum 68, and greatest daily range 26. The total precipitation was .54 inch.

The principal field work was husking corn. The variety test on field C5 was harvested. Harvesting of corn on the rotation plats was started. Corn is making an unusually good yield. Plowing of field D3 was continued and completed. All fallow rotation plats were harrowed after the rain. Some weeding was done on the rotation plats and on the farm roads.

Yuma.

During the week ending August 30, the following acreage on the station was irrigated: cotton, 10-1/2; nurseries, grounds, and garden, 5; alfalfa, 5; figs, 5; sorghums, 4; orchard, 2; pecans, 1; and, pasture, 2.

The weather continues to be warm and very humid. Crops in general are in good condition. Cotton is now being picked in different parts of the valley. Pickers are being paid 2 to 2-1/2 cents a pound.



## Yuma (continued).

Grain sorghums are beginning to mature. Alfalfa threshing continues in various localities.

The fifth cutting of alfalfa is being harvested. Ditches were cleaned, roads and borders were hoed.

The maximum temperature for the week was 105, minimum 72, and greatest daily range 32.

On August 29, the eight hogs on alfalfa pasture were removed and seven pigs averaging 83 pounds were put on in their place.

The results obtained from the first pasturing period are shown in the following table:

Hogs on Alfalfa Pasture and 2% Cracked Grain Sorghum.

| No.<br>of<br>Hog                     | No.<br>of<br>Days                                    | Initial Weight.                              | Final<br>Weight                               | Gain   | Average daily gain.                           | Grain<br>fed | Pounds grain per 1b. gain. |
|--------------------------------------|--|--|---|--|---|--------------|----------------------------|
| 1<br>2<br>3<br>4<br>5<br>6<br>7<br>8 | 121<br>121<br>121<br>121<br>121<br>121<br>121<br>121 | 55<br>71<br>49<br>56<br>42<br>67<br>54<br>54 | 129<br>176<br>147<br>149<br>131<br>169<br>147 | 7 <sup>4</sup><br>105<br>98<br>93<br>89<br>102<br>91<br>7 <sup>4</sup> | .61<br>.87<br>.81<br>.77<br>.74<br>.84<br>.75 |              |                            |
| TotalAverage                         | 121  | 450<br>56                                    | 1176<br>147                                   | 726<br>91  | .75   | 1809         | 2,3                        |

The area of this plat was .39 acre.

# Demonstrations on Reclamation Projects.

## Field Notes.

#### Belle Fourche.

During the week ending August 23, fourteen farm visits were made and five office conferences held.

A number of farmers have sold their alfalfa hay at \$20.00 a ton to be fed on the premises. A few have received \$1.00 an acre additional for pasture.



## Belle Fourche (continued).

A few sheep mentare offering sheep for "farming out". Most of these men offer half the increase and half the wool with a five per cent loss of ewes to be stood by the owner. With present prices of hay, it is very doubtful if many such contracts will be made this fall. One plan suggested appears much better on the face though it has never been tried and would be more or less of an experiment. This plan is that the sheepman sell his ewes to the farmer at whatever price is agreed upon. Next spring, the ewes are to be bought back by the sheepman at a stipulated price per head, say \$7.00 increase over the sale price of last fall, the farmer to feed and care for them and lamb them out in the spring. The farmer stands the loss of ewes, if any.

A Breeder's Gazette representative was on the project August 10 in company with a breeder from Hurley, South Dakota. He came with the farmer to look over the quality of feeder hogs grown on the project. Before leaving, he stated that he could place 5,000 head.

Up to date, inquiries for over one hundred car loads of feeder hogs have been received from various sources in Eastern South Dakota, Iowa, Nebraska, Minnesota, and Wisconsin.

The Belle Fourche Commercial Club has recently sent out letters to the sheepmen of the trade territory inquiring of the wool growers if they would be interested in the organization of a wool growers association. One of the plans is to use this organization in the financing of a large public warehouse for the storage of wool. Something very much needed for the handling of the more than 2,000,000 pounds of wool which annually passes through warehouses in the city. This association, if organized, will very likely lead to the cooperative marketing of wool by the farmers and ranchers in this district.

Movement of sheep and cattle to market has begun. During the week, several car loads of splendid crows with calves were brought in from the ranges and shipped to Omaha, as a direct result of the shortage of feed to carry them over the winter. The calves were a splendid looking lot. It seemed a tremendous sacrifice to see so many of them loaded into cars and sent to the block.

Cars have been difficult to get because of the delay in shipments caused by the strike. At present, shipments are about two weeks behind.

Seventeen farm visits were made during the week ending August 30. Two office conferences were held and a meeting of twenty-five hog growers was addressed at Newell.

Arrangements have practically been completed for the sale of approximately sixty head of registered Duroc-Jersey hogs. This is a cooperative affair to which seven breeders on the project will contribute.



Belle Fourche (continued).

A delegation of two project farmers will be accompanied to points in Iowa during the week ending September 6 for the purpose of purchas-

ing about sixty head of registered Shropshire sheep.

A hog growers' meeting was attended Saturday of this week. This meeting was called for the purpose of working out some plan of notification by the farmers when their hogs are ready for shipment without the necessity of a personal visit to determine this fact. Another project hog growers' meeting will be held and this matter gone into further.

A plan was proposed to the growers of hogs regarding the production of a more uniform product. The plan under local conditions is workable and is being considered quite favorably. The plan as proposed suggests that the growers decide on a date to breed their sows in the fall or summer, for spring or fall pigs, preferably, spring pigs. The sows would farrow approximately the same time in the spring. These pigs, fed a limited grain ration of alfalfa, should grow off practically the same during the season. ing time approaches they would be a much more uniform product, thus selling more readily and the bulk of the hogs could be marketed within a few weeks. This sort of a production plan could be advertised and buyers brought to the project for the period of marketing. Better prices could be received for the feeders than are being received by many of the project growers under present conditions. Pigs. of all ages may be found in visiting the various project farms. A number of farmers have expressed considerable interest in the plan, and, while little is expected this season or next, the possibility is that sentiment will gradually work around to some plan of this nature.

Huntley.

During the week ending August 30, there were received eighteen requests for assistance, including ten office calls, and 59 visits to farmers were made.

The greater part of the week was spent in assisting Dr. Walker, Bureau of Animal Industry veterinarian and the owners of twenty-six herds of dairy cattle in relation to tuberculin tests. A total of 283 cows have been tested. No animals were condemned but 3 cows on one farm have been classed as suspects and will be retested next week.

About 300 tons of alfalfa sold last week for \$15.00 in the stack but most producers are yet unwilling to sell at that price.



Newlands.

During the week ending August 23, there were received 26 calls for assistance and six calls were made to farms. Considerable time was devoted to preparation for the first project community sale. Considerable interest is being shown in this new undertaking. Articles were contributed to the local papers relative to the sale.

During the week, there was an outbreak of anthrax on one of the ranches near Fallon. A herd bull died and was allowed to be eaten by the hogs. In a short while the hogs became infected. A local veterinarian was called but did not think the trouble serious. Specimens of material were sent to the veterinary department at Reno, Nevada, for analysis and a diagnosis of anthrax was made. Steps were at once taken by the department to immunize all horses, cattle, and hogs on the ranch. A great many hogs were lost, however, before the serum with which they were injected could take effect. The disease in the case of the hogs was localized in the throat.

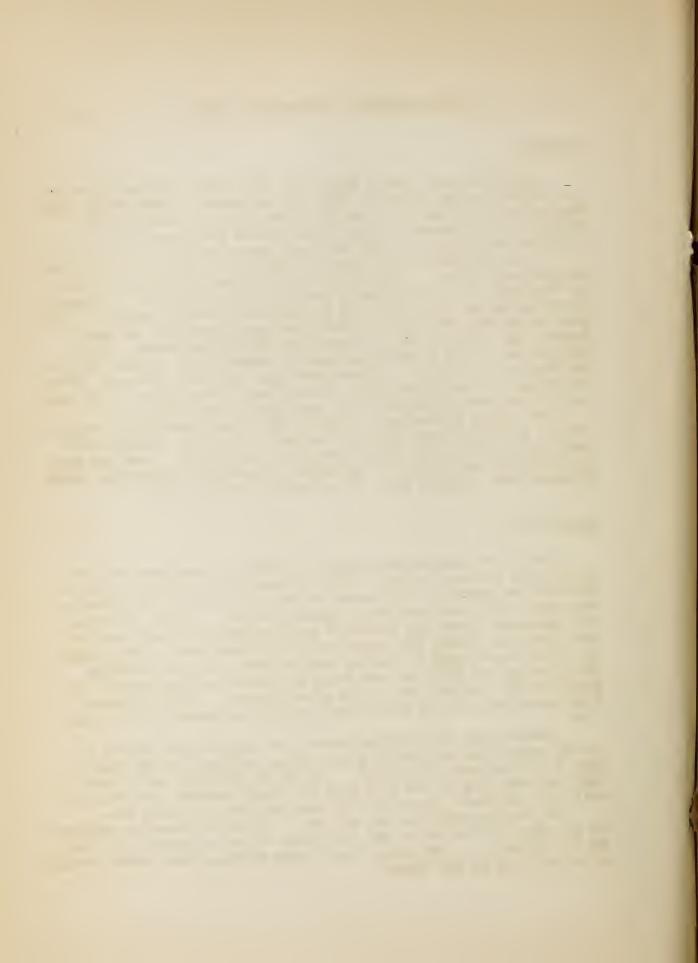
The second harvesting of alfalfa hay is now practically completed and the yield has been very satisfactory. Some hay changed hands early in the season for \$15.00 per ton in the stack. Some has been sold recently for \$18.00. The market at present is unsettled though no doubt many ranchers would be willing to sell at \$18.00.

North Platte.

During the week ending August 30, fourteen farms were visited for general live stock work, seven of these being visited at the request of the owners. Five herds of hogs were treated for sickness and three herds were vaccinated against cholera. Since threshing has commenced, there has been more sickness among the hogs than at any other time during the summer due to the fact that a large number of farmers have taken to feeding oats to their hogs as a straight grain ration and this has been found to produce serious results, especially when the hogs are not on green pasture. An article has been contributed to the local papers calling attention to the situation.

Several farms were visited during the week for the purpose of giving suggestions on fitting dairy cattle and hogs for the county fair to be held week after next. If all of the dairy cattle and hogs are exhibited at the fair that are being prepared, this valley will have the best live stock fair that has ever been held here.

The weather continues dry and hot. There are threshing machines in all parts of the valley and the yields of grain reported are fully up to standard. A few farmers have begun putting their third cutting of alfalfa hay in the stack.



Uncompangre.

The week ending August 30 was spent at the ram sale in Salt Lake City where assistance was given in the selection of sixteen ewes and a ram.

The usual number of sheep were consigned and the interest was strong although there were not so many startling prices paid for sheep. The Rambouillits represented 50 per cent of the sheep offered and received the highest prices. The top ram sold for \$1,600. and was consigned by the University of Illinois. A King ram brought \$1,500. and a Bullard ram brought \$1,450. Range rams of this breed sold at prices ranging from \$60. to \$125. in pen lots. Hampshire interest was about as usual. One ram lamb imported by Blastock brought \$800. which was the top price for that breed. Range rams sold from \$35. to \$60.

The interest in crossbred sheep was fair. Some very good offerings of Panamas were sold. There is a feeling of caution among the sheepmen as yet in regard to the crossbreds, however, the wool produced from the proper cross is exceptionally good.

The course wools were not in so strong a demand. Some excellent imported rams of Lincoln and Cotswold sold as low as \$100. One Lincoln brought \$500.00.

The sale was a great uplift to the sheep industry in the west as it afforded an opportunity for the sheepmen to obtain rams at reasonable prices that will improve their herds.

Yakima.

During the week ending August 23, eleven farm visits were made, and four office calls and four conferences were held.

Mr. Waddell, near Tieton City, reported having a few sick pigs and suspected an outbreak of cholera in his herd. However, the trouble proved to be nothing more serious than slight digestive disturbances caused by a sudden change from dry lot to fresh alfalfa.

Mr. R. D. Lewis, a very prominent and successful hog grower and most constant cooperator with this office in hogging off pea demonstration, sold his farm on Monday of last week to a farmer from Connecticut. Mr. Lewis does not intend to leave the valley but expects to buy another farm better adapted to general livestock than the one he has just sold. However, arrangements will be made, if possible, to continue this year's demonstration with the new purchaser as soon as he takes possession of the farm, as he included the livestock in his purchase.

The farmers in the Tieton project are very busy at this time with their fruit as this is the season for the harvesting of the pear crop.



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BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

SEP. 13 1919

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Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

September 13, 1919.

No. 11

## Western Irrigation Agriculture.

### Field Notes.

Huntley.

The precipitation for the week ending September 6, 1919, was 1.89 inches. There fell im one main 11.84 inches, which is the most precipitation that has fallen at any one time since 1915, as shown by the weather records of this station.

This rain was of great benefit to all the crops and it will not be necessary to irrigate any more this season. The rain prevented the cutting of the third crop of alfalfa, but this will be done as soon as the ground is sufficiently dry.

San Antonio.

During the week ending September 6, the maximum temperature was 95, minimum 58, and greatest daily range 29. The total precipitation was only .01 inch.

Husking of corn in the rotation experiments was completed. The yield of corn was very good, the average yield on 21 plats being at the rate of 49 bushels per acre. The best plat yielded at the rate of 54.5 bushels per acre, and the poorest at the rate of 43 bushels per acre. The second crop of sorghum for forage in the rotation experiments was cut. Rhodes grass on field A3 and B4 was cut and raked. Corn stalks in the rotation experiments were cut and plowing of the corn plats was started. Some plowing of oat stubble was done on fields: B3 and C3. Some weeding was done in the orchards and on the rotation plats. Soil samples were taken on sorghum plats in the rotation experiments. On account of the large crop of corn produced it was necessary to construct an additional small crib in which to store the corn.

Messrs. Davidson and McKeever neturned from Greenville, Texas, on Friday.

Newlands.

During the two weeks ending August 30, the following plats were plowed and harrowed: F4, 16; E3, 4, 5, 6; Y1, 2, 14, 15.

The following plats were irrigated: A, C, D, E, H3, 4, 5, 6, 7, 8, 9, 10, 16, 21, 22, 23, 24, 25, 26.



Newlands (Continued).

Result of soil treatment experiments: -- This experiment was located on plats 9 and 10 of Field B, where the soil is of such a nature that seeds germinate with difficulty, and the plants which do emerge grow to a height of only a few inches during the season. After each irrigation the surface of the untreated soil cements over, forming a very hard crust.

The two large plats, E9 and 10 were each divided into twenty small plats, each having an area of 12 by 45 feet, .0124 acre. After the treatments were added, each plat was plowed and harrowed separately. Wheat was seeded in all plats with a grain drill.

When the grain was mature it was cut by hand, put into sacks and allowed to dry in the air, after which it was weighed on delicate balances.

The weights given include both grain and straw,

| The weights given include both gra      | in and s          | traw.        |              |
|---|-------------------|--------------|--------------|
|   | Yield             | - Pound's.   |              |
|   | eries I           | Series II    | Total        |
| Check                                   | .31<br>.44        | .25          | .56          |
| Gypsum 110#                             | . 1314 J          | <b>`.3</b> 8 | .82          |
| Gypsum 25#                              | ,38               | .25          | .63          |
| Sulfur 28#                              | . 31              | .25          | .56          |
| Sulfur 7#                               | .38               | , this       | .82          |
| Check                                   | .00               | .38          | .38          |
| Manure 700#                             | .75<br>.44<br>.94 | 3.06         | 3.81         |
| Manure 1400#                            | , jt ji           | 3.38         | 3.82         |
| Manure 2800#                            | , 9hh             | 2,06         | 3.00<br>6.13 |
| Manure 1400# Gypsum 28#                 | 3.00              | 3.13         | 6.13         |
| Check                                   | 1,25              | 1.00         | 2.25         |
| Check                                   | 1.25              | .25          | 1.50         |
| Manure 1400# Sulfur 14#                 | 1,56              | 3.44.        | 8.00         |
| Manure 1400# Acid Fosfate 4#            | 2.75              | 2.25         | 5.00         |
| Gypsum 28# Acid Fosfate 4#              | 2.88              | .56          | 3.44         |
| Sulfur 14# Acid Fosfate 4#              | 2.75              | 50           | 3.25         |
| Check                                   | .56               | .13          | .69          |
| Acid Fosfate 4#                         | 1.25              | .50          | 1.75         |
| Acid Fosfate 4# Gypsum 28# Manure 1400# | 1.81              | 5.11         | 4,25         |
| Acid Sulfatel# Sulfur 14# Manure 1400#  | 1.00              | 2.38         | 3.38         |
| Check                                   | 4.31*             | 25           | .25          |
| 16. 37                                  | -                 |              |              |

\* Not used as a part of this plat-lies in an area of good soil.

The average yields have been re-arranged in the order of rank in the following table:

| ı.       | Manure, sulfur               | 8,00 |
|----------|------------------------------|------|
| 2.       | Marrie, gypsum               | 6,13 |
| 3.       | Manure, Acid Fosfate         | 5.00 |
| 4.       | Manure, Acid Fosfate, Gypsum | 4.25 |
| 5.<br>6. | Manure 1400#                 | 3.82 |
|          | Manure 700#                  | 3.81 |
| 7.       | Gypsum, Acid Fosfate         | 3.44 |



## Newlands (Continued).

| 8.  | Manure, Acid | Fosfate, Sulphur | 3.38 |
|-----|--------------|------------------|------|
| 9.  | Sulfur, Acid | Fosfate          | 3.25 |
| 10. | Manure 2800# |                  | 3.00 |
| 11. | Acid Fosfate |                  | 1.75 |
| 12. | Gypsum 110#  |                  | .82  |
| 13. | Sulfur 7#    |                  | .82  |
| 14. | Gypsum 28#   |                  | .63  |
| 15. | Sulfur 28#   |                  | .56  |
| 16. | Check (Avg.  | ) plats)         | .46  |

Manure had a decidedly beneficial effect wherever used. When used in combination with sulfur, gypsum or acid fosfate the yields were generally greater than when manure was used alone. The use of chemicals alone or in combination improved the soil to some extent but they were not so effective as the manure.

### Yuma.

A few windy days followed by a light rain on August 31, made it somewhat cooler during the week ending September 6.

The amount of cotton picked and ginned in the valley increases each day. Nearly all the gins on the project are openating, but none to full capacity as yet.

A shortage of labor for handling the 1919 cmop is just beginning to be felt. Efforts are being made to import foreign labor from Mexico to relieve the situation.

The first picking of Egyptiam cotton was begun on the station this week. Some of the short staple cotton in the cooperative series will be ready to pick as soon as the taking of notes has been completed.

Some of the sorghums will be ready to harvest next week.

Cowpeas grown as a green manure crop on the ganden plats were plowed under.

Maximum temperature for the week was 105 on the 5th; minimum, 65 on the 4th. Greatest daily range 39. Preci pitation, .10.

# Demonstrations on Reclamation Projects.

#### Field Notes.

# Huntley.

During the week ending September 6, there were received from all sources 20 requests for assistance and 19 farm visits were made.

Besides the regular live stock work, much time was given to vanious matters pertaining to the two fairs. Also assistance was given with a cooperative shipment of cattle. Two car loads, 53 head, were loaded for Omaha. September 6.

Several hundred tons of hay sold during the week ending August 30, at \$18. 50 on the track, the buyer to do the baling.



Minidoka.

Office calls during the week ending August 16, numbered 65. Eight farm visits were made, one meeting attended, one case of hog cholera investigated and a joint meeting held by the Minidoka County Commissioners and the Fair Board resulting in an increase of their appropriation for the Fair in the amount of \$750.00 for premiums.

The following demonstration, which was held on the Minidoka Pro-

ject, is worthy of consideration:

Figured cost of raising pigs: -- Wishing to know what it was costing him to produce pigs, C. W. Fester, of Emmeson Community, Minidoka County, kept a complete record on a litter of seven pigs from November

20, 1918, at time of farrowing, until July 111, 1919.

During the suckling period the sow was fed 320 pounds of grain. In addition to this, the pigs were fed in a creep 42 pounds of chopped wheat and 55 gallons of skim milk. The pigs were weared on January 2, 1919. From this time until April, 1919, they received 600 pounds of chopped wheat and 550 gallons of skim milk. At this time, a "runt" carried over from the spring litter before was put in the feed lot. This pig at this time weighed approximately 123 pounds. They were turned on an old alfalfa pasture where the stand was not good and fed a grain ration of one pound each day of rolled barley, consuming 240 pounds of grain up to May 20, 1919. At this time, they were weighed and the grain ration increased so that they were receiving at least two and one-half pounds of grain each per day. They were weighed again on July III, 1919, with the result shown in the first table below:

These results show higher grain requirements and greater costs to produce one pound of gain than some demonstrations in other counties. This has been due to poorer pasture and heavier hogs, showing that as a hog grows larger, it takes more grain to make a pound of gain.

Below is a statement of cost of feed fed to these hogs:

| 320 pounds chapped wheat to sew, at 36          | \$ 9.60  |
|---|----------|
| 42 pounds chapped wheat to pigs, at 3 \$        | 1.26     |
| 400 pounds chapped wheat to pigs, at 36         | 12.00    |
| 200 pounds chapped wheat to pigs, at 3.1/2¢     | 6.50     |
| 240 pounds rolled barley to pigs, at 3 1/46     | 7.80     |
| 912 pounds rolled barley to pigs at 3 1/2¢/     | 31.92    |
| 234 pounds relled mye to pigs at 3.66           | 8.42     |
| 2348 pounds                                     | \$ 77.50 |
| 800 pounds grain equivalent to 600 gallons skim |          |
| mi 1k at 3.56                                   | 28.00    |
| 3148 pounds grain at a cost of                  | 105.50   |



### Minidoka (Continued).

The shoats weighed 1329 pounds on July 11, and deducting from this the weight of the yearling shoat on April 19, of 123 pounds. leaves a gain of 1206 pounds, live weight, of hogs on 3148 pounds of grain costing \$105.50. This makes the gain in weight of shoats

cost \$8.75 per pound.

Mr. Foster has been offered 17.5 cents per pound for these shoats and at this price the 1206 pounds would bring \$211.05. Aften deducting the cost of feed, \$105.50, there is left \$105.55 profit for pasture and labor. The pasture was situated so that it could not have been used for other purposes this year, so Mr. Foster feels he has marketed this grain at the value of what he could get for the hogs, which would bring him \$6.70 per hundred pounds of grain fed when no account is taken of the labor and pasture.

During the week ending August 23, one day was spent attending the ram sale at Filer, Idaho. The highest priced ram on the day attended will be shipped to the Minidoka Project for use on a pure bred Hampshirethard. This year's sale was not nearly as successful as the preceding year, good breeding swuff going for half what it

sold for one year ago.

One day's help was given in the construction of a wooden hoop silo on R. B. Moy's farm near Rupert.

During the week ending August 30, one day was spent with F. R. Commack, State Dairy Extension Agent, giving assistance in the con struction of concrete silos.

One day was spent in Salt Lake City, securing additional exhibits for the Fair and making arrangements for J. E. Dorman to judge at our Fair.

The entire week, practically, was given to the Fair work and development of silos.

One meeting of the Intermountain Farmers' Association was attended. Addresses were made by the President of the Farmers' Union, State Grange and the Intermountain Farmers' Association, which was

formerly the Intermountain Beet Grower's Association,

Newlands.

During the week ending August 30, there were received thirty calls for assistance and visits were made to six farms. During the week some time was devoted to assisting the veterinarians in charge of tuberculosis eradication in the State. A short trip into this project was made for some emergency testing and while here eighty-three head were treated. No reactors were found. It is expected that a very small percent of reactors will be found in this project.

On Wednesday the first project combination sale was held in Fallon. This first sale was considered quite successful for the first attempt. A second sale will be held probably in three months. The only live stock offered at this sale were horses. They were very slow sale. The items entered in the sale consisted almost entirely of farm utensils, implements and vehicles.



Newlands (Continued).

The advertising for this sale was financed by the local merchants. Large posters were printed advertising the sale and giving a list of the items offered. On the margin of this bill were set aside eight spaces for advertising. These spaces were sold to local business firms for sufficient money to pay for the 500 posters and the necessary postage to send them through the mail. All of the property at the sale was put up at auction. If any article, was selling too low the owner had the privilege of withdrawing it by paying 5 percent of the highest bid for auctioneer's services. The auctioneer's fee was 5 percent also for all property sold.

There has been a recent importation of one registered Jersey bull and one registered Holstein bull. Both animals were imported from California.

#### Shoshone.

During the week ending August 30, two farm visits were made, 24 office calls were received, eight other conferences were held and three cattle were treated for blackleg.

Eight butter makers were written regarding the opportunity of employment of the Powell Creamery. A special meeting of the stock holders was held to consider selling or leasing the creamery, but as only 22 were present, no legal action could be taken. Those present voted unanimously to authorize the directors to do as they think best.

Most of the calls this week were regarding the shipment of sheep and cattle, the selling of hay to men who will feed it on the farm, the buying of sheep and cattle for breeding or feeding purposes and the management of the creamery.

During the week ending September 6, one farm visit was made, nineteen office calls were received, and twelve other conferences were held.

With the manager of the Powell Creamery, a trip was made to Red Lodge to investigate methods used in making butter and ice cream at the Red Lodge Creamery.

Two cars of sheep were shipped to Omaha, six men cooperating in the shipment.

The season for shipping stock hogs will soon be here, so letters were written to sixteen men regarding a market for stock hogs.

Most of the calls this week were about the management of the Fowell Creamery and shipping and wintering sheep and cattle.



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# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

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#### WEEKLYBULLETIN

# Of the Offices of WESTERN IRRIGATION AGRICULTURE And DEMONSTRATION ON RECLAMATION PROJECTS.

Vol. XVI. September 20, 1919. No. 12

#### Western Irrigation Agriculture.

#### Field Notes.

Huntley.

During the week ending September 7.3, height measurements and growth maps were taken of all irrigated alfalfa plats, in Fields K and L-IV just previous to the time of cutting. The cutting of this season's third crop of elfalfa was done September 12. From all indications there will be a heavy yield of very good quality hay.

The following tables show the results obtained in a test with spring pigs on alfalfa and 2 percent barley:

## Rotation 67. Field K.

| No.of<br>Hog                                  | Days                             | In.Wt:   | Final<br>Wt.                     | Gain             | Avg.<br>Daily<br>Gain.                       | Lbs.Bar-<br>ley fed. | Lbs.Gra-<br>in per Lb<br>Gain |
|---|----------------------------------|--|----------------------------------|------------------|--|----------------------|-------------------------------|
| *70<br>*72<br>*74<br>95<br>*123<br>146<br>152 | 14<br>14<br>14<br>14<br>14<br>14 | 94<br><b>85</b><br>48<br><b>77</b><br>67<br>38<br>45<br>37 | 95<br>92<br>58<br>65<br>49<br>39 | 17494440         | .07<br>.50<br>.29<br>.65<br>15<br>.29<br>.29 | 149.8                | 5,16                          |
| Total<br>Average                              |                                  | 401<br>61,38   | <u>520</u>                       | <u>29</u><br>3.6 | 2.09   |                      |                               |

# Rotation 69. Field L-IV.

| *73 *122 *124 131 150 153 154 155 Total | 14<br>14<br>14<br>14<br>14<br>14 | 82<br>62<br>61<br>43<br>43<br>42<br>55<br>41 | 85<br>66<br>74<br>47.<br>47<br>47<br>58<br>47 | 34 34 4 5 36 8 | .22<br>.29<br>.93<br>.29<br>.29<br>.36<br>.22<br>.43 | 126 | 3.00 |
|---|----------------------------------|--|---|----------------|--|-----|------|
|   |                                  | 429  | 471   | -              | -  |     |      |
| Average                                 |                                  | 53.63  | 58.88   | 5.29           | ,216   |     |      |

<sup>\*</sup> Grade Duroc-Jerseys - All others pure bred Duroc-Jerseys.



Umatilla.

Report for the week ending June 28. -- The maximum temperature was 95, the minimum 50, the greatest daily range, 49, and there was no precipitation.

The crops of the project have suffered somewhat from drouthdus to the inability of the Reclamation Service to run the ditches to their capacity on account of their being clogged with pondweed. An investigation of the growth was made in cooperation with Prof. W. E. Lawrence of the Oregon Agricultural college. It was first thought that the growth was alga, but Prof. Lawrence has identified the most troublesome species as Potamogeton pectinatus, fennel-leaved pondweed. The plant makes a grass-like growth and is propagated by seeds and underground rootstalks so that the control is more difficult than that of alga would be. Prof. Lawrence will make further investigations on controlling it with chemicals placed in the water. The Reclamation Service is making some headeay cutting it with a submarine saw and afterwards draging the ditches with a heavy chain.

The farm work proceeded as usual.

Report for the week ending July 5. -- The corn in fields A2 and C1 was heed and the alfalfa in B1 and the orchard in C2 was irrigated during the week.

The pondweek mentioned in last week's report became so troublesome that it was necessary to turn the water out of the main canals for four days in order to dry it out and kill it. The lower part of the Farm is on a two-weeks irrigation rotation and the four additional days which the water was out of the ditches made some of the crops suffer considerably. The corn on the graded land las fared rather badly.

Maximum temperature 99, minimum 50, greatest daily range 49.

Report for the week ending July 12. -- The maximum temperature was 106, the minimum 42 and the greatest daily range 56. No precipitation.

President Kerr, of the Oregon Agricultural College, and a committee of the Board of Regents visited the farm.

Report for the week ending July 19. -- The maximum temperature was 110, the minimum 144 and the greatest daily range 55. No precipitation.

The second outting of hay was put up during the week.

Report for the week ending July 28. -- The maximum temperature was 102, the minimum 52 and the greatest daily range 52. No precipitation.

Hogs were put in the field peas and barley on the plats of the commercial fertilizer tests in field A4.

There has been considerable activity in the hay market during the past 10 days. A number of Portland firms are buying in this district and the competition is keen. The price advanced from \$19. to \$25. F. O. B.



#### Umatilla (Continued).

Report for the week ending August 2.— The maximum temperature for the week was 99, the minimum 45, the greatest daily range 51. No precipitation. The mean temperature for July was the highest of any month during the records of the farm. The demand for water was great and some of the crops suffered, although where they were kept wet the growth of hay was exceptional. The corn on the Farm fired badly between irrigations.

The following are the yields for the first and second crops in the combined fertility irrigation experiment in field Bl. The

plats all had the same amounts of water:

| Treatment                             | ' Tons per acre. Field dry. |                      |                      |  |
|---------------------------------------|-----------------------------|----------------------|----------------------|--|
|                                       | First Crop                  | Second Crop          | Both Crops           |  |
| Sulphur-80#<br>Manure-4 Tons<br>Check | 1.67<br>1.89<br>2.11        | 1.56<br>1.52<br>1.64 | 3,23<br>3,41<br>3,75 |  |
| Manure-8 tons                         | 2.42                        | 1,40                 | 3.82                 |  |

Report for the week ending August 9. -- The maximum temperature was 98, the minimum 50 and the greatest daily range 48. Precipitation .05 inch.

The orchard was irrigated during the week. The peaches in the variety test are beginning to ripen.

Report for the week ending August 16. — The maximum temperature was 99, the minimum 46 and the greatest daily range 49. No precipitation.

Mr. Dean attended an irrigation demonstration at Pasco, Washington, at the request of the Franklin County Farm Bureau. The farmers of the Pasco Project, who have similar conditions to the Umatilla, are much interested in the methods of irrigation employed on this project. The talk dealt chiefly on the border method.

Report for the week ending August 26. -- The maximum temperature was 102, the minimum 52 and the greatest daily range 49. No precipitation.

The cover crop of vetch in the orchard is being disked in. Border are being made in a considerable part of the orchard, preparatory for next year's irrigation.

A conference was held at the farm with the County Agents of Umatilla and Morrow counties and a representative of the Biological survey. Among the matters taken up were the field day at the farm, the Hermiston Hog and Dairy Show and the jack rabbit poisoning campaign for next winter.

Mr . Dean held joint meetings with the Morrow county agent at

Irrigon and Boardman on the West Extension.

Mr. E. Debler of the Water Supply Investigations of the Reclamation Service spent considerable time at the farm securing data for a report on extension to the Umatilla Project.



#### Demonstrations on Reclamation Projects.

#### Field Notes.

Belle Fourche.

During the week ending September 6, nine farm visits were made and ten office conferences held. A meeting of thirty farmers was addressed at Vale regarding the marketing of feeder hogs. Approximately two thousand hogs were listed as ready for the market about October 1st to 15th. An effort is being made to run them in a special train to one point in Eastern South Dakota.

The Eoys' and Girls' pig feeding contest was closed at Newell during the Labor Day celebration held there on that day. Ten pigs were on exhibition in the contest. The boy winning first place produced a gain of 114 pounds in 88 days at a cost of \$9.07. Interest in this feature of the Labor Day celebration for a time shared the honors with the aeroplane, the feature of the day. The youngsters are tremendously interested in the hog industry and a number next year will have a sow and litter of pure breeding for exhibition. The hogs this year were auctioned at the close of the day, a local butcher getting several of them.

The advertising of the first registered Duroc Jersey hog sale held by project farmers has been placed. Booklets were prepared showing the breeding of the various individuals and groups offered. Fifty-eight head will be put up for sale. This will be the first sale held under the direction of the recently organized Black Hills Breeders Association.

During the week ending September 13, nine farm visits were made and three days spent in attendance at the State Fair at Huron, S. Dak.

Two cars of feeder bogs were marketed for one project farmer at 18¢. The market on this day was \$17.50 at Omaha. The farmer was much pleased with the sale.

The 1919 South Dakota State Fair, the 35th annual affair, was a splendid success. Fair weather featured the week and crowds were constant. The live stock show in some respects was the best ever shown at this fair. The agricultural exhibit was perhaps the poorest ever held, certainly not any better than last year under war conditions.

The hog show was the best on record, both in numbers and quality. Over six hundred Duroc-Jersey swine were entered. This exhibit was an exceptionally strong one. Chester White, Poland China and Hampshires were about equally divided, each being represented by over two hundred head. The Berkshires were not very well represented, there being but a few pens of this breed.

The Ekorthorn and Hereford cattle were represented about equally. A number of splendid Iowa cattle were entered in these classes.



Belle Fourche (Continued).

Holsteins, Guernsey, Ayreshires and Jerseys were well represented and made a very good appearance in the live stock parade. These herds were principally from South Dakota, the strongest competition in the Holstein classes coming from the State Penitentiary Farm. A feature of the Fair was the dairy products exhibit supervised by the State Dairy Commissioner located at the State College.

The sheep division was the weakest show on the grounds, with but a few pens on hand. The Shropshires and Hampshires made a very creditable exhibit. In the Rambouillet classes but one herd was entered. Also but one herd of Oxfords was exhibited.

Perhaps the largest exhibit of the fair was in automobile machinery suitable for farm or home use. It was a real mechanical show, featuring automobiles, trucks, tractors, gas engines and the many electrical or automotive power home conveniences, such as washing machines, elec tric lighting devices, butter churns, etc. Farm machinery of every description was abundantly in evidence and in action.

Saturday was spent at the State College at Brookings, S. Dak. Conferences were held with several members of the Extension service, particularly one with Director Larsen.

The splendid dairy herd at the College was visited in company with Director Larsen, the builder of this herd. A more sanitary milk plant as economically conducted would be difficult to find. Silage yielding fifteen tons to the acre was being put into the four large silos. The Director stated that there was one full silo left from last year that had not yet been opened.

The worlds record cow for milk production is still in the College herd. Her record for one day exceeded 127 pounds of milk.

#### Minidoka.

During the week ending September 6, twenty-eight farm visits were made, fifty-nine office calls received and help was given in the construction of two concrete siles in Cassia County. One call was received to make inspection of a calf club heifer which was exciting the owner considerable on account of caked udder. The heifer mentioned is springing a special udder and is certainly ample proof of good breeding and the owner seemed more than well pleased with his purchase.

Considerable time during the week was spent getting up exhibits for the two fairs, one in Burley and one in Rupert.

#### North Platte.

During the week ending September 6, sixteen farm visits were made, six of which were at the request of farmers to examine sick hogs. Hog cholera was found among the hogs on three farms and 260 head at these places were vaccinated. At all of the other places the hogs were found to be sick from being fed on dry oats.



North Platte (Continued).

At the three places where the hogs had cholera, and at the other places where the hogs were sick, they were found to be in rundown condition and the owners in each case admitted that they had had poor care during the summer, and especially during the harvest season. There has been so very little cholera found among herds here that are properly fed and cared for that it would seem that proper care along was in all cases the best preventive for all kinds of sickness.

A few farms were visited for general dairy work and in making preparations for the exhibit of milk products and of dairy cattle at the County Fair .

During the forepart of the week ending September 13, three farms were visited on the first day and one bunch of eight head of hogs were vaccinated against cholera. The remainder of the week was spent in preparing for the County Fair held at Mitchell and in assisting with it.

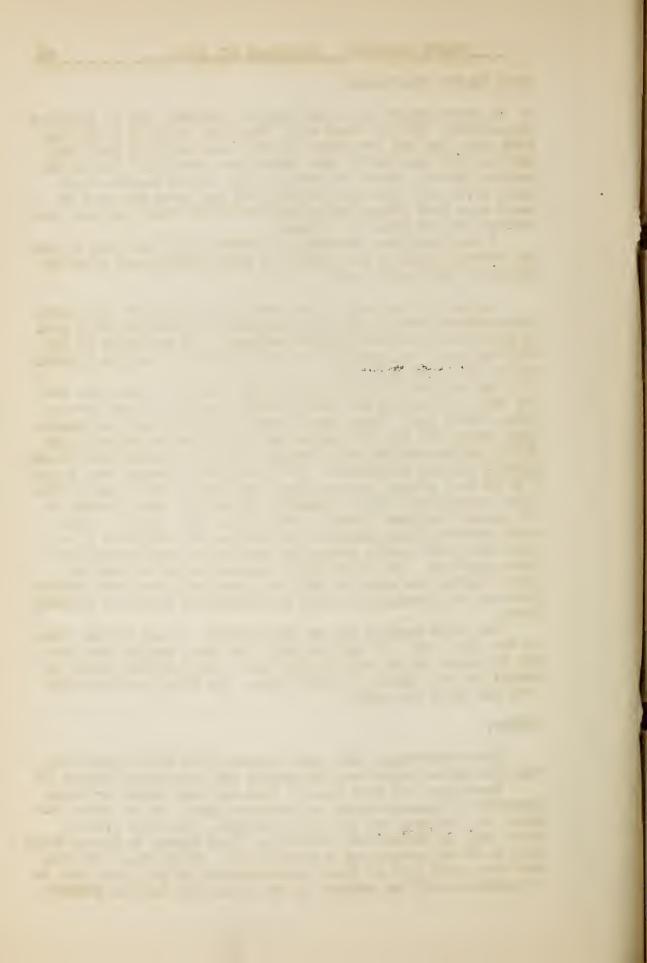
The exhibits of live stock at the Fair this year were better than ever before and large crowds of people viewed the exhibits every day. There were 33 entries of Hereford and Shorthorn cattle for the beef breeds and 53 entries of Holstein and Jersey cattle for the dairy breeds, these two breeds being about equally divided in numbers. The Scottsbluff Creamery had a sign 6 by 16 feet placed in a prominent position on the grounds with this inscription, "FAIR'S GREATEST ATTRACTION, Dairy Cattle in the Cattle Pavilion, Spend a part of your time there." This sign attracted considerable attention and was the means of a great many more people seeing the cattle than would have seen them otherwise. The State Dairy Association had a large exhibit showing the value of milk as a food, which was very attractive and did considerable good in advertising the dairy industry here.

The swine exhibit was not much better, if any better, than it was last year. It was the only live stock exhibit that was not far ahead of the exhibit last year. Over 20,000 people attended the Fair during the four days. The third day was rainy and the crowd was small.

Yakima.

Five conferences were held, sixteen farm visits were made and four office calls received during the week ending August 30.

Three more men were located this week who wished to begin cooperative demonstrations on pasturing hogs. Two of these farmers, Mr. Richards and the Bergstrom Bros., has been growing their hogs on alfalfa and skim milk. They expect to finish their hogs on wheat pasture and a grain ration. While these two will not have field peas in their demonstrations it will give data to be compared with the results of the field peas for hog rature.



Yakima (Continued).

While visiting some of the farmers on the Tieton unit a number of excellent samples of grasses were collected. These will be used for the exhibition of the Tieton unit during the State Fair to be held here next week.

#### SPECIAL NOTICE TO DEMONSTRATION FIELD MEN.

Mr. A. C. Cooley reported for duty as Agriculturist in Charge of the Office of Demonstrations on Reclamation Projects on September 17. His address until further notice will be care of Mr. J. E. Dorman, 308 Federal Building, Salt Lake City, Utah.

Carbon copies of weekly and monthly reports of field men should be sent to Mr. Cooley at the Salt Lake address, the originals of these reports being sent to Washington office as heretofore. Correspondence relating to fiscal matters should be addressed as heretofore to Washington, and carbon copies of these letters should be sent to Mr. Cooley.

Correspondence in relation to matters other than fiscal affairs should be addressed to Mr. Cooley at Salt Lake, but carbon copies of these letters should be sent to Washington for the files.



# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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#### WEEKLY BULLETIN

#### Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI. September 27, 1919. No. 13

#### Western Irrigation Agriculture.

#### Field Notes.

Huntley.

The third cutting of alfalfa was maked into windrows, in Fields K and L-IV, during the week ending September 20. After being theroughly cured a light rain prevented the hauling of the hay.

The balance of the fall plowing of the grain plats in Field K was done.

Samples for estimating the yield of corn, on the irrigated plate to be hogged off this fall, were taken and the first weight recorded. The picking and storing in drying racks of seed corn for next season's planting was commenced.

A light rain during the latter part of the week was of benefit to the potatoes and sugar beets and to alfalfa that is being hogged off in the irrigated rotation work.

Newlands.

Report for two weeks ending September 13, 1919. -- The third crop of alfalfa was cut and most of it hauled to the stack. The inside of the silo was painted with a coat of tar paint to render the cement more nearly air tight.

Twelve hundred pounds of Crawford peaches were picked from five trees.

The following plate were irrigated: A; C; D-2, 5, 6: E-7 and 8:

| Pla        | t                    | Lbs.                         | Area                     | Yield per acre-tons             |
|------------|----------------------|------------------------------|--------------------------|---------------------------------|
| D-F-F-E-E- | 3   2<br>15   2<br>1 | 2600<br>2550<br>2935<br>1435 | .34<br>.26<br>.26<br>.56 | 3.9<br>4.9<br>5.6<br>4.0<br>3.9 |

Seven and ene-half tons of corn were put in the silo and the remainder was put in shock.

Huntley (Continued).

The following temperatures were recorded:

| For week ending | September 6; | September 13. |
|-----------------|--------------|---------------|
| Maximum         | 92.          | 88            |
| Minimum         | 35           | 37            |
| Precipitation   | 0            | 0.            |

San Antonio.

During the week ending September 13, the maximum temperature was 95, minimum 63, and greatest daily range 30. The total precipitation for .10 inch. The weather was very warm the greater part of the time.

Sorghum on rotation plats was raked and shocked. Rhodes grass on B-3 and B-4 was raked and shocked. Sorghum varieties were not obtained because of damage by birds. Plowing of corn plats was continued and the plowing of cat stubble on B-3 and C-3 was finished.

Some time was spent in preparing and putting on an exhibit of products grown on the Station at the Bexar County Agricultural Exhibit held September 10 and 11.

Mr . R. S. Kirby, who is in charge of grain rust investigations in this region, spent two days at the Station, seeding several varieties of grains and taking notes on rust conditions.

During the week ending September 20, the maximum temperature was 89, minimum 63, and the greatest daily range 15. A severe windstorm accompanied by rain occurred on September 14. The average wind velocity for the twenty-four hours was more than twelve miles an hour and the maximum velocity for this time was fifty-four miles, ac ording to the report of the U. S. Weather Bureau in the daily paper. Several fruit trees were blown over so that it was necessary to straighten them up and brace them. Roofs were damaged so that immediate repairs were necessary. The cotton crop, which at best is poor, was damaged more or less. Corn that had not been gathered is lying on the ground. The rainfall during the storm amounted to 3.70 inches and rain fell every day during the week, the total precipitation being 5.26 inches.

Fractically no field work was possible. A half day plowing was done in a pasture that had become quite dry and hard. When rain was not falling, labor was employed at repairing buildings and at work about the grounds.

Demonstrations on Reclamation Projects.



Huntley.

A meeting of 25 farmers interested in pure bred cattle was attended at Osborn. After considerable discussion a time was set when all who were interested or who contemplate buying registered cattle should meet the breeders and exhibitors at the Midland Empire Fair. J. L. McCammon and the Agriculturist were instructed to prepare the way for them at Billings.

On the 13th, the first Project Boys' and Girls' Fair was held at Ballantine. Cash prizes and ribbons were given to 3 exhibitors in each of 8 clubs. The exhibits were better than had been expected and as a result of the fair it is believed that more interest will be taken in slub work next year. The winners with their exhibits are to go to Billings without cost.

There were 21 requests for exsistance, and 27 farm visits were made.

Shoshene.

During the week ending September 13, six farm visits were made, nine office calls were received, and ten other conferences were held.

Some assistance was given to officials of the Park County Fair in collecting exhibits from this locality. About thirtyfive lambs were entered at the fair by members of the Boys' and Girls' Lamb Club in the bum lamb class, and some real good grade lambs were shown in that class.

One man who had a large part of the cooperative shipment of two cars of sheep seld on the Omaha market the 8th, reported that while he received as much for his ewes and lambs as he expected, he did not receive enough to pay for the feed that he had fed since he bought the ewes last fall. In addition to the big drop in prices, he had heavy losses on the range and from bloat on alfalfa pasture where he ran them after the range dried up,

A trip was made to Billings to see a buyer for the Powell Cooperative Creamery. He accompanied Mr. Magruder to Powell, looked at the creamery and discussed the proposition with the directors, but no deal was made. The man who has been manager is still in charge, and he has employed the man who was running the local cream station, and they plan to handle eggs and chickens and perhaps next summer make ice cream.

Newlands.

During the week ending September 13 there were received 34 calls for assistance and ten visits to farms were made.

The Churchill County Fair was held in Fallon during the entire week on the grounds formerly used for the Nevada State Fair. The Nevada State Fair was abandoned this year because of nonsupport from the State. The interest in the local fair was not whit it has been in former years. Very little interest was taken in exhibits. No cash prizes were offered.



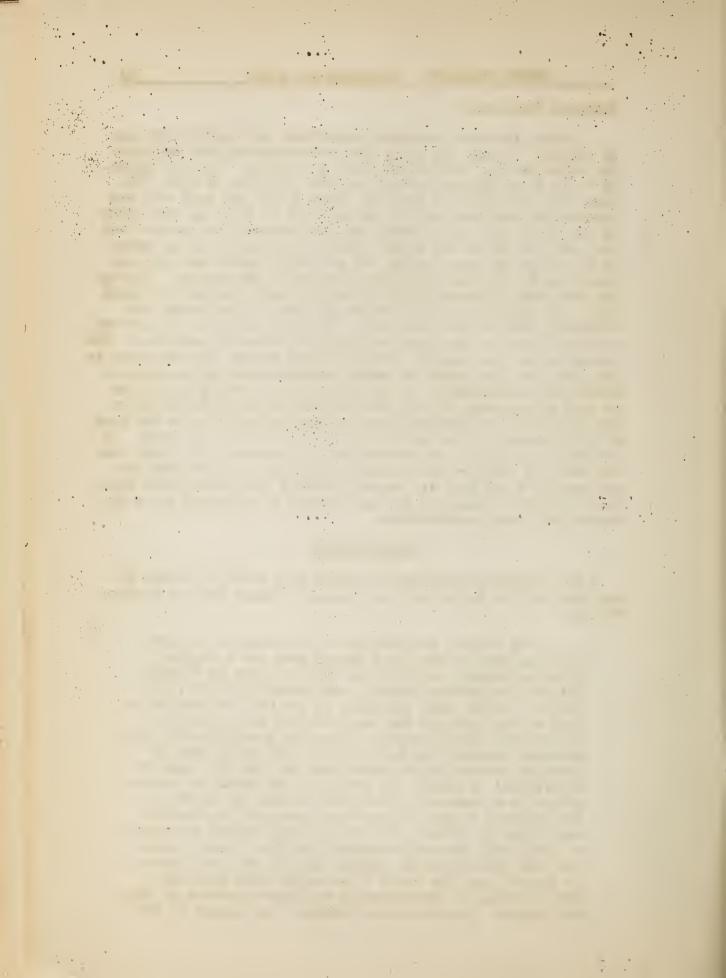
Newlands (Continued).

During the week an unusual experience with milk fever came to notice. The cow was found down and unable to rise one morning after calving twenty-four hours previously. The cow appeared to be in no distress except for the inability to rise. The udder was well inflated with air about 9 a.m. and left with the expectation that she would be on her feet in three or four hours at the most. The animal moved some and removed the strings that retained the air in the udder, allowing some pressure to escape. By 7 p.m. of the same day the cow was still unable to rise, and otherwise in the same condition as found in the morning. The udder was again distended with air with as much pressure as seemed safe, and strings were tied around the ends of the teats very securely. The cow was then left. The owner examined the cow two or three times in the night and found no change in condition. The following morning, however, with a little urging, the cow arose to her feet, but the return to normal condition was not as rapid as ordinarily experienced. It is rarely that an animal can suffer so long with a case of milk fever without showing more distress. The difficulty in treating this case was no doubt due to the loss of air pressure at the time of first inflation of the udder. It has been the writer's experience that in cases of milk fever when the udder is inflated to as great an extent as is safe and the pressure left in, that the animal recovers much faster than when less pressure is used and the air changed at intervals as is the custom with some practitioners.

#### MISCELLANEOUS.

The following paragraph is quoted from an order issued by the Chief of the Bureau of Plant Industry, under date of September 22:

"Any Bureau, Division or Office desiring to have printing done in the field should make out a regular printing request, stating the appropriation to be charged and the expense thereof, and forward the same, together with the copy therefor, to the Chief of the Division of Publications for consideration and approval. The request should contain a detailed description of the printing desired, the lowest obtainable price, and the name and address of the individual or firm from whom it. is proposed to secure the printing; and should be accompanied by a statement giving the reasons for securing : the printing in the field rather than from the Government Printing Office. No such printing should be ordered until both the subject-matter and the request therefor have been approved, except when in the field there is unusual need for haste in securing small printing, when it would be impracticable to secure approval or submit proofs. In such cases, however, full report of the



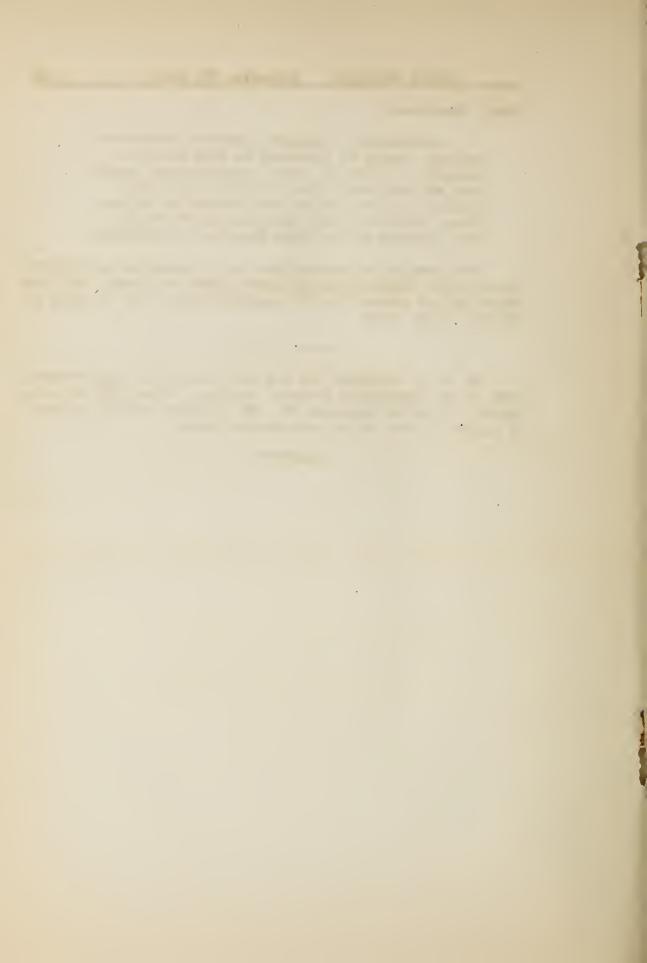
Miscl. (Continued).

transaction, including a copy of the matter printed, should be forwarded to this office as promptly as possible. This information is essential for the reason that a record of all field printing will be kept by the Division of Publications, which will make detailed reports of all such printing to the Joint Committee on Printing."

Field men of the two offices are requested to be governed accordingly. Unless there is unusual need for haste, the Washington office should first be consulted before any printing is ordered in the field.

Mr. H. A. Lindgren, who has been conducting demonstration work on the Uncompandere Project, Colorado, since 1915, has resigned, effective September 30. Mr. Lindgren intends to take up editorial work for an agricultural paper.

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# WEEKLY BULLETIN

OF THE OFFICES OF

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## WEEKLY BULLETIN

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# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

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|  |  |                                 |       |          |

Huntley.

The selecting and storing of seed corn for next season's planting in irrigated rotations was finished during the first part of the week ended September 27. Due to the enceptionally good corn growing weather that has prevailed this year it was possible to select seed corn of good type and quality.

The third cutting of alfalfa was moved, shocked and hauled during the last half of the week. Although this cutting was rained on after it was down, making it necessary to turn the hay once for drying, there was but slight damage done to the crop, and we were able to mow away a good quantity of fairly good quality hay.

Much cooler weather and a couple of light frosts have prevailed during the week.

Spring Pigs on Alfalfa Pasture and 2 percent Barley:

Rotation 67. Field K.

| Number<br>of Hog   | No.<br>of<br>Days                | Init'1<br>wt.  | Final wt.   | Gain                                 | Avg.<br>Dqily<br>Gain                                 | Lbs.<br>Corn<br>Fed. | Lbs.Grain<br>per Lbs.<br>Gain |
|--|----------------------------------|--|---|--------------------------------------|---|----------------------|-------------------------------|
| *70<br>*72<br>*74<br>95<br>*123<br>146<br>153<br>156<br>Total<br>Average | 14<br>14<br>14<br>14<br>14<br>14 | 95<br>92<br>95<br>95<br>95<br>95<br>95<br>95<br>95<br>95<br>95<br>95<br>95<br>95<br>95 | 109<br>104<br>54<br>93<br>77<br>48<br>53<br>42<br>580<br>72.5 | 14<br>12<br>7<br>12<br>6<br>4<br>7.5 | 1.00<br>.86<br>.14<br>.50<br>.86<br>.43<br>.29<br>.22 | 144.8                | 2,40                          |

Rotation 69, Field L-IV,

| *73 *122 *124 131 150 153 154 155 | 14<br>14<br>14<br>14<br>14<br>14<br>14 | 85<br>66<br>74<br>47<br>47<br>47<br>58 | 94<br>71<br>84<br>52<br>49<br>50<br>65<br>50 | 951052373 | .65<br>.36<br>.72<br>.36<br>.14<br>.22<br>.50 | 137. | 2 3.12 |
|-----------------------------------|--|--|--|-----------|---|------|--------|
| Total<br>Average                  |  | 471<br>58,88                           | <u>515</u><br>64.37                          | 5.5       | 3,17  |      |        |

\*Grade Duroc-Jerseys -- All others Pure-bred Duroc-Jerseys.



San Antonio.

During the week ended September 27, the maximum temperature was 89, minimum 61, and greatest daily range 18. Precipitation amounted to 1.39 inches and was distributed over three days so that not much field work was done.

Labor was employed a good deal of the time in cleaning up about the grounds, cutting weeds and removing trash. Some seed corn was shelled and feed ground. A small pasture near the barn was plowed and seeded to oats. Fields D3 and C3 were gone over with the spring tooth harrow and the Johnson grass was hoed out of D3 in preparation for seeding oats for the steer pasturing experiment. Corn husking was finished. All of the corn was blown down by the recent storm and a good deal of that on F3 was moldy, germinated or rotten. This was a variety test, including several varieties sent by the Texas Field Crop Association. The corn on C5 was all Laguna and was in much better condition.

## Demonstrations on Reclamation Projects.

### Field Notes.

Minidoka.

During the week ended September 13, ninety office calls were received and eight farm visits were made.

The Fair at Burley this year was very successful. It was also a wild west roundup and the educational features of the Fair were lost to a large portion of the spectators. There were eighty-three head of cattle at the Fair and twenty-six head of horses. The cattle were divided as follows: 6 Jerseys, 21 Shorthorns, 25 Herefords, 31, Holsteins. The livestock exhibits were divided equally in number from Cassia and Minidoka Counties. The horse department and the beef department had a majority from Minidoka County, while the hog department was entirely monopolized by Mr. H. C. Polly, of Cassia County, who is a br eeder of Duroc-Jersey hogs. Perhaps one of the strongest classes was the aged cow class in the Holstein breed. There were seventeen entries in this class and the first prize and Championship was given to Mr . R. A. Ray, a farmer living south of Rupert. This cow was first and champion at the Minidoka County Fair as well as second at the State Fair at Boise. A heifer owned by one of the calf club members of Cassia County was placed fourth in this ring, which is very creditable, considering that there were at least twelve mature, well-developed cows in the class. The sheep exhibit was perhaps the weakest exhibit at the Cassia County Fair.

During the week ended September 20, practically all the silos on the Project were filled. In most all instances, the addition of water was advocated to get the proper moisture content for the silage. In nearly every case, farmers were not using enough men in the silo to pack it properly and recommendations were made to put at



Minidoka (Continued).

least two or three men in the silo so that the silage was packed properly. Practically everyone covered their silage either with straw or alfalfa hay. A good system for covering silage was called to the writer's attention this week--that of putting a foot of chopped straw on top of the silage and sprinkling grain over this after thoroughly dampening the straw. This should hermetically seal the silo when the grain sprouts.

The Minidoka County Fair was held this week and according to all reports was bigger and better than ever. The spirit of cooperation that existed among the exhibitors and fair superintendents was especially good. Following is the number of livestock exhibited in the various departments: horses, 36 head; Herefords, 18 head; Shorthorns, 22 head; Jerseys, 4 head; Holsteins, 40 head; hogs, 18 head; sheep, 36 head.

In the spring, assistance was given in the organization of the Southern Idaho Hereford Breeders' Association and their exhibit of a carload of Herefords at the Cassia County and Minidoka County Fairs was an exceptionally good educational exhibit as well as a good advertisement for the Hereford cattle.

The Holstein exhibit in the dairy cattle department was by far

the strongest of the dairy cattle exhibit.

Frank Sullivan, who exhibited Shorthorns and Percherons, took home a check for \$190, in prize money, which speaks well for the class of livestock he has.

Reports have already come in from the Idaho State Fair, which was held September 22-29, showing that the Minidoka Project, and especially Minidoka County, has won more premiums at the State Fair than any other county in the State. In view of the fact that livestock exhibits were present at the State Fair from Montana, Wyoming, Colorado, Washington and Oregon, this speaks well for the Minidoka Project livestock.

As an educational Fair, the Minidoka County Fair is certainly conducted along the right lines. During the week of the Fair, there were thirteen extension specialists at Rupert, including J. E. Dorman of the Western Office of the U. S. Dairy Division, of Salt Lake City, and Dr. W. A. Falloon, who is conducting a campaign for the eradication of tuberculosis in cattle. In every class of livestock that was judged, there was always a big crowd of spectators ready to hear why the prizes were placed as they were. Every evening several lectures and a parade of livestock was made before the grandstand and crowds of five to six hundred were always present at these evening performances. Judging demonstrations were part of the evening's program and they were mixed in with the amusement features so that a fair medium was reached whereby people who attended not only had the opportunity of getting some recreation by a very high standard of entertainment, but also learned something about the livestock in their home community and why they were good livestock.

A meeting was addressed with an attendance of 550.



North Platte.

During the week ended September 20, seventeen farms were visited for general livestock work, and one evening meeting was held in regard to marketing cream. Cholera was found among the hogs on four farms and uninfested hogs vaccinated against it. Hog cholera has been confined to different localities this year and there has been very little of the disease on the farms where it was prevalent last year. Very good success has attended the vaccination against cholera this year, and a larger percent of hogs have been saved than were saved by vaccination last year.

Several of the dairymen of the valley were visited during the week in regard to the annual meeting of the dairy association and the election of officers for the coming year at that meeting. Arrangements were made for a general drive through the valley to obtain more members for the dairy association. This association has grown during the past year and has accomplished a number of things which have been of benefit during the year.

During the week ended September 27, eighteen farms were visited for general livestock work, six of these farms were visited at the request of the owners and hogs were vaccinated against cholera on one farm.

A meeting was attended on Wednesday evening at the Sunflower school house of some of the members of the dairy association, and members of the Farmers' Union, relative to the marketing of creamin the valley. It has been the custom of the Farmers' Union to sell what cream they bought to one of the local creameries but of late some of the managers of the buying stations have been shipping this cream outside of the valley at a lower price than was being paid here, while the local creameries here needed all of the cream they could get and had to ship in butter to supply their demand. It was agreed at this meeting that the men in charge of the cream buying stations for the Farmers' Union were to sell cream to the local creameries from now on so long as the net profit to the Union was as great as by selling elsewhere.

On Tuesday afternoon a meeting of the stock feeders of the valley was attended at Scottsbluff. The subject discussed at the meeting was the business of cattle feeding and the chances for profit or loss in feeding during the coming season. The consensus of opinion among those present was that the outlook for a profitable feeding season this year was not very good.

Huntley.

The whole of the week ended September 20, was spent at the Midland Empire Fair Grounds. A carload of dairy cattle, including eleven from the Huntley Experiment Farm, and a carload of hogs, and some crop exhibits, were taken from the Huntley Project to the Fair. As a whole the attendance was larger and the displays more extensive than in any previous year. On account of drought conditions over the State the crop display was hardly as large as it was last year, but the live stock buildings were overcrowded.

Project exhibitors carried away most of the ribbons in Durce-Jersey classes and every competing Holstein secured a place. A number of the Boys! and Girls! Club members secured a place also.



## Huntley (Continued).

There were ten requests for assistance received during the week ended September 27, and sixteen farm visits were made. Three committee meetings were attended, also a meeting of the Wheatley Grange and one public sale.

As a result of the meeting of the Huntley Project Farmers at the Midland Empire Fair, one good Shorthorn bull was purchased.

No heifers were offered for sale,

Several of the best milk cows have been lost recently from alfalfa bloat as a result of owners getting in too big a hurry to pasture fields. Death in these cases came very suddenly.

Returns from the shipment of cattle made on the 6th were in line with market conditions. Those who participated knew the state of the market, consequently little dissatisfaction has been expressed.

#### Shoshone.

During the week ended September 20, one farm visit was made, twelve office calls were received, and twelve other conferences were held.

One day was spent at the Billings Fair.

One of the farmers reported that one of his cows had become very thin, had a badly swollen mouth and could neither eat nor drink. Investigation showed that his cow pasture consisted of a poor stand of alsike clover and a good stand of short but thorny Russian thistle. The cow, in eating the clover, had damaged her mouth with tumble weeks. Two other cows on the same pasture, on examination, showed similar sore mouths, but not sore enough to stop their eating and drinking.

### Uncompahgre.

Eight farms were visited during the week ended September 6, and calls were received from fourteen sources.

A trip was made to Cedaredge for the purpose of selecting dairy cows for project farmers. Two farmers purchased two head each. The cows were Holsteins and of good type.

Some work was done on the arrangements for the Western Slope Fair during the week.

Delta County has a new County Agent, a Mr. Yeager from the Oregon Agricultural College. Mr. Yeager succeeds Mr. Divilbiss, who has moved onto his own farm.

During the week ended September 13, two farm visits were made and seventeen calls for service and information received.

The greater part of the week was spent in working on the livestock department for, and attending, the Delta County Fair.

During the week ended September 20, four farms were visited and calls received from thirty-five sources.

The greater part of the week was given over to the work at the Western Slope Fair in connection with the Live Stock Department. The number of livestock was not so great this year but there was much more quality in the animals shown. Several



Shoshone (Continued).

exhibitors from the outside were present with stock of excellent quality. An excellent showing of Herefords was made this year.

Mr. A. C. Cooley visited the project and checked the property of the office, and assisted in the organization of a Pure bred Live Stock Association.

Yakima.

During the week ended September 6, thirteen farm visits were made, and two office calls and two calls for assistance were received.

The farmers are preparing for silo-filling time. In visiting the farmers in various parts of the Tieton unit, not a case has been found where a farmer was not satisfied with the results of silage feeding. A few silos have proven unsatisfactory due to faulty mechanical construction. Several new silos are being built this season and in all cases visited this week the farmers who are building new silos already have one or two in use. Most of these men have not been practising summer feeding of silage, but are beginning to realize the benefits of silage as a supplement in the summer mation for the dairy stock.

During the week ended September 13, fourteen farm visits were made, five office calls and two calls for assistance were received and one conference was held.

On Monday of this week severty-six hogs belonging to Henry Beddoe were taken from a field of peas, weighed and turned into a field of corn. These hogs were pastured on field peas from July 25 to September 8. During this period they made an average gain of thirty-nine and one-half pounds. The four acres of field peas produced seven hundred fourty-seven pounds of pork per acre. Had Mr. Beddoe put the hogs on the market at this time he would have realized \$149.40 per acre from the field peas. The hogs used in this hogging off demonstration were of Mr. Beddoe's own breeding and were mostly of the Duroc-Jersey breed. So far Mr. Beddoe is very well pleased with the results of this system of hog management.

A trip was made to points in the lower part of the Yakima Valley. Farmers were visited at Sunnyside, Grandview, Outlook and Prosser. Because of rains Wednesday and Thursday the work was quite difficult. The town of Mabton was attempting to hold the annual hay palace fair but owing to the inclement weather, the fair was not well attended. This was the first real rain this season.

Considerable time was spent this week in attending the Washington State Fair held here at Yakima. Monday was spent with the County Agent in conducting the high school boys' stock judging contests. Five high schools were represented, namely: Ellensburg, Sunnyside, Grandview, Toppenish and Yakima. A team consisting of five boys from each high school entered the contest. The contest was very spirited and the boys displayed great interest. The results showed that they had received considerable training in this line of work.

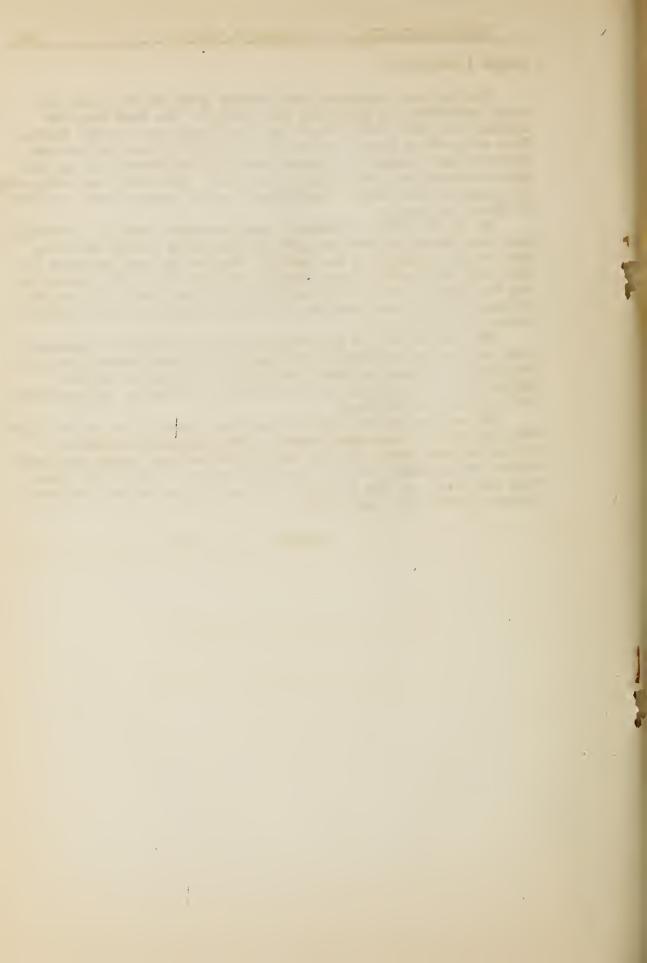
.  Yakima (Continued),

Tuesday and Wednesday were largely spent in assisting the stock exhibitors in preparing the stock for the show ring and helping the judges with their work in placing the animals shown. This work was to have been done on Tuesday but owing to the unexpected large number of entries made, it was impossible for the judges to complete their work in one day. The cattle and sheep exhibits were completed on Monday and Tuesday but it required the third day to place the hogs.

Mr. E. B. Marks, Livestock Superintendent, made the statement that the number of herds of beef cattle, dairy cattle and sheep were fully as large, if not larger, than at any fair previous to this year and that the hog show was the largest in the history of the Northwest. Herds were entered from as far East as Wisconsin, although the greater portion of the stock shown were from Idaho, Oregon and Washington.

The latter part of the week was spent in getting acquainted with the various livestock exhibitors and in conferences with representatives from the State Agricultural College at Pullman, United States Department of Agriculture, and farmers and livestock men visiting at the fair.

The weather during the fair week was almost ideal and the time was such that it was very favorable for farmers and stockmen to attend for the reason that it came after the busy summer work and before the beginning of the busy fall season, so that there were very few people of the Yakima Valley who did not attend the fair, especially the last three days.





# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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# WEEKLY BULLEYIN

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#### WEEKLY BULLETIN

Of the Offices of

WESTERN IRRIGATION AGRICULTURE and DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

October 11, 1919.

No. 76 15

## Demonstrations on Reclamation Projects.

#### Field Notes.

Huntley.

During the week ended October 4, thirty-two samples of milk from four different herds were tested for butter fat.

One outbreak of blackleg was investigated and vaccination advised. The preventative treatment against blackleg was demonstrated on one farm, ten calves being vaccinated.

Three men were given assistance in disposing of stock hogs. In company with five dairymen from the Huntley Project a trip was made to Powell, Wyo. Through the assistance of Mr. Magruder, of the Shoshone Project, about twenty registered Holsteins were seen. A number of them are desirable animals and the prices are right, but no decision was reached about buying at that time.

Eight requests for assistance were received, five conferences attended, and fourteen farm visits were made.

North Platte.

During the week ended October 4, nine farms were visited for general livestock work. Four of these were visited at the request of the owners. Several herds of hogs were tested for cholera but none of them was found to have cholera.

Several farms were visited in the interest of dairying and assistance was given in keeping milk records and in balancing rations. One half day was spent on one farm in assisting with the planning of a dairy barn. Silo filling has been going on at most of the dairy farms in the valley, and at the present time practically all of the silos are filled.

A very good meeting of the dairy cattle breeders was attended at the Scottsbluff Creamery on Saturday afternoon, at which meeting officers for the coming year were elected. A meeting of the executive committee was called to meet at Scottsbluff on Saturday night of the following week.



Shoshone.

During the week ended September 27, three farm visits were made, eleven office calls were received, and twenty other conferences were held. One milk sample was tested.

With the manager of the Powell Creamery the dealers in Cowley, Lovell, Greybull and Basin were visited regarding marketing butter, eggs and poultry. The demand was good for butter and eggs but there was not much demand for poultry, most of the dealers having a surplus. There is some farming around these twons, but oil and other manufacturing industries cause considerable demand for butter and eggs. Considerable attention is being given now to the management of the cooperative creamery.

A majority of the calls this week were regarding the marketing of hogs and cattle. So far, about all of the hogs listed have been disposed of to local farmers who need hogs to clean up wheat fields. Over two cars of cattle are listed for shipment, but it is very difficult to obtain cars.

## Western Irrigation Agriculture.

Field Notes.

Huntley.

The crowning of the irrigated plats of alfalfa was started during the week ended October 4. The soil is in very good condition for crowning, making it fairly easy to do a good job of cutting off the alfalfa roots about four (4) inches below the surface.

The cut plats of corn were shocked.

Several heavy frosts occured, killing most all vegetation.

The harvesting of sugar beets and potatoes will commence this coming week.



Huntley (Continued).

## Yields of Alfalfa in 1918.

| Deta           | ta-   Plat No.   Pounds per Plat.   Tons per Acre. |          |       |        |          |       |                  |       |       | Λ==                                  |
|----------------|--|----------|-------|--------|----------|-------|------------------|-------|-------|--------------------------------------|
| Rota-<br>tion  | Plat No.   | 1st.     | 2nd.  | 3rd.   | Total.   | 1st.  | 2nd.             | Acre. | Total | Age                                  |
| No.            |  | 150.     | Z11U. | Jra.   | 10041.   | 150.  | ciiu,            | Jra.  | 10001 | years,                               |
| 1401           |  |          |       |        |          |       |                  |       |       | yours.                               |
| 67             | K-II-1   | 1370     | 1035  | 1000   | 3405     | 2.74  | 2.07             | 2.00  | 6.81  | 2                                    |
| 67             | ē  | -510     | 1000  |        | ged Off" | 1 1 - |                  | 00    | 0,01  |                                      |
| 67<br>67       | 6  | *        | 240   | 310    | 550      |       | .4g              | .62   | 1,10  | í                                    |
| 61             | III-1  | 1310     | 1030  | 980    | 3320     | 2.62  | 2.06             | 1.96  | 6.64  | 2                                    |
| 61             | 2  | 940      | 515   | 700    | 2155     | 1.88  | 1.03             | 1.40  | 4.31  | 3                                    |
| 61             | 6  | *        | 310   | 830    | 1140     |       | .62              | 1.66  | 2.28  | í                                    |
| 60             | 7  | 1100     | 965   | 990    | 3055     | 2.20  | 1.93             | 1.98  | 6.11  | 2                                    |
| 60             | g  | 860      | 530   | 700    | 2090     | 1.72  | 1.06             | 1.40  | 4.18  | 3                                    |
| 60             | 12   | *        | 205   | 1.60   | 365      |       | 41               | .32   | .73   | 3<br>1<br>2<br>3<br>1<br>2<br>3<br>1 |
| 40             | IV-2   | *        | 95    | 140    | 235      |       | .19              | .28   | .47   | 1                                    |
| 40             | 3  | 1230     | 810   | 860    | 2900     | 2.46  | 1.62             | 1.72  | 5.80  | 12128214                             |
| 42             | 8  | *        | 285   | 230    | 515      |       | .57              | .46   | 1.03  | 1                                    |
| 42             | 9  | 1120     | 850   | 910    | 2880     | 2.24  | 1.70             | 1.82  | 5.76  | 2                                    |
| . <b>j</b> †j† | 12   | *        | इंद्र | 250    | 480      |       | .46              | .50   | .96   | 1                                    |
| प्रेप          | 13   | 760      | 510   | 8 po   | 2110     | 1.52  | 1.02             | 1.68  | 4,22  | 2                                    |
| 8              | 22   | 915      | 660   | 730    | 2305     | 1.83  | 1.32             | 1.46  | 4.61  | g                                    |
| 46             | L-IV-11  | 1320     | 1010  | 850    | 3180     | 2.64  | 2,02             | 1.70  | 6.36  | 2                                    |
| 46             | 12   | **1,40   | 465   | 750    | 1365     | .28   | <sup>2</sup> .93 | 1.52  | 2.73  | 1                                    |
| 8a             | 14   | 1 US15   | 0.050 | 880    | 3415     | 2.97  | 2.10             | 1.76  | 6.83  | 14                                   |
| 64             | 15   | ****1.60 | 190   | 75C    | 1100     | .32   | .38              | 1.50  | 2,20  | 3                                    |
| 64             | 15<br>16   | 1300     | 920   | glio   | 3060     | 2.60  | 1.84             | 1.68  | 6,12  | 2                                    |
| 64             | 17   | **200    | 290   | 710    | 1200     | .40   | .58              | 1.42  | 2.40  | 1                                    |
| 69             | 22   |          |       |        | ed off". |       |                  |       |       | 3                                    |
| 69<br>69       | 23   | 1.385    | 1.125 | 870    | 3380     | 2.77  | 2.25             | 1.74  | 6.76  | 3<br>1<br>3<br>2<br>1<br>8           |
|                | 5 jr   | **5,10   | 335   | 810    | 1385     | .48   | .67              | 1.62  | 2.77  | 1                                    |
| Triang!        | Les: K.7   | 7370     | 3130  | 5/1/10 | 8990     | 2.30  | 2.17             | 1.67  | 6.14  |                                      |
|                | K-JI   | 4005     | 3570  | 3080   | 10655    | 2.38  | 2,11             | 1.83  | 6.32  | 8                                    |
|                | K-III  | 3080     | 2370  | 2490   | 7840     | 1.95  | 1.43             | 1.57  | 4.95  | <b>S</b>                             |
|                | L-IV   | 1655     | 2685  | 2210   | 6550     | 1,46  | 2,31             | 1.90  | 5.67  | 5                                    |

<sup>\*</sup> Spring seeded--insufficient growth for cutting.

<sup>\*\*</sup> Fall seeded--reseeded this spring to increase stand.
\*\*\* Plowed up in fall of 1918 by mistake.



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# WEEKLY BULLETIN

OF THE OFFICES OF

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AND

## DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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#### WEEKLY BULLETIN

Of the Offices of

WESTERN IRRIGATION AGRICULTURE and

#### DEMONSTRATIONS ON RECLAMATION PROJECTS

Vol. XVI.

October 18, 1919

Noo. 16.

## Western Irrigation Agriculture

## Field Notes.

Huntley.

The harvesting of sugar beets in the irrigated rotation plats was commenced October 6. A five inch snow and a freeze on the hight of October, 8th stopped the harvesting of the sugar beets for a day.

The harvesting of the potatoes in the irrigated rotation

plats was commenced October 11.

The pasturing of alfalfa with spring pigs, in Field K, was discontinued October 8th. Four of the eight pigs used for the alfalfa pasturing in field K, were transfered to a quarter acre corn plat, to be hogged off, in the same field. The eight spring pigs, used in Field L-IV, for pasturing off alfalfa, were transferred to two quarter acre corn plats, with rape growing between the rows of corn, in the same field, October 10. The rape had an average height of ten inches, when the pigs were put on the plats



Rotation 67. Field K .--- Spring Pigs on Alfalfa Pasture and 2% Barley

| Number<br>of Hogs | Number<br>of Days | Initial<br>Weight | Final<br>Weight | Gain | Average<br>Daily Gain   |     | Pounds Grain<br>Pounds Gain |
|-------------------|-------------------|-------------------|-----------------|------|-------------------------|-----|-----------------------------|
| *70               | , 12              | 109               | 118             | 9    | •75                     |     | _                           |
| *72               | 12                | 104               | 110             | 6    | .50                     |     |                             |
| *74               | 12                | 54                | 58              | 4    | .34                     |     |                             |
| 95<br>*123        | 12                | :.93              | 100             | 7    | •58                     |     |                             |
| *123              | 12                | 77                | 84              | 7    | .5g<br>. <del>5</del> 2 |     |                             |
| 146               | 12                | 48                | 53<br>55        | 5    | .\$2                    |     |                             |
| 152<br>156        | 12                | 53                | 55              | 2    | .17                     |     |                             |
| 156               | 12                | 42                | 43              | 1    | .08                     | 150 | 3.66                        |
| Total             |                   | 580               | 621             | 41   | 3.42                    |     |                             |
| Average           |                   | 72.5              | 77.63           | 5.13 | .428                    |     |                             |

Rotation 69. Field L-IV Spring Pigs on Alfalfa Pasture and 2% Barley

| *73<br>*122<br>*124<br>131<br>150<br>153<br>154<br>155 | 14<br>14<br>14<br>14<br>14<br>14<br>14<br>14 | 94<br>71<br>84<br>79<br>79<br>79<br>79<br>79<br>79<br>79<br>79<br>79<br>79<br>79<br>79<br>79 | 103<br>75<br>93<br>58<br>54<br>52<br>67<br>56 | 94 96 50 NG | .65<br>.29<br>.65<br>.43<br>.14<br>.14 | 151.2 | 3.52 |
|--|--|--|---|-------------|--|-------|------|
| Total<br>Average                                       |  | 515<br>64.37   | 558<br>69 <b>.75</b>                          | 43<br>5.38  | 3.09<br>.386                           |       |      |

## RESULTS OF THE SUMMER PERIOD OF HOGGING OFF ALFALFA

| Items  | Field K<br> Rotation<br>67  | Field L-IV<br>Rotation<br>69   |
|--|---|--|
| Number of Pigs Number of Days Initial Weight Final Weight Total Gain Average daily Gain Grain Fed Pounds of Grain per Pounds of Gain | 8<br>96<br>315.00 pounds<br>621.00 pounds<br>306.00 pounds<br>3.19 pounds<br>882.70 pounds<br>2.56 pounds | 8 98 315.00 pounds 621.00 pounds 243.00 pounds 2.48 pounds 829.50 pounds 3.41 pounds |



#### Newlands.

The corn on field G was cut and shocked during the week ending September 20. The highest temperature during the week was 88, lowest 38, with no precipitation.

The hauling and stacking of the third crop of alfalfa hay was

completed.

The yields of each of the three crops and the total yield for the year for all plots is shown in the following table.

|              | <del>,</del> |                 | TENTOT D    | ~ <del>~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ </del> | 371.3.1      | A           |                           |                              |
|--------------|--------------|-----------------|-------------|---|--------------|-------------|---------------------------|------------------------------|
|              |              |                 | YIELD       | 5   |              |             | Yield per                 | ACTE,                        |
|              |              |                 | POUNDS      | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~            | -            |             |                           |                              |
|              |              |                 |             |   | <del></del>  |             |                           |                              |
|              | First        | Second          | Third       | Fourth  | Total        |             |                           |                              |
| Plats<br>D 3 | Crop         | Crop            | Crop<br>460 | Crop  | Yield        | Aera        | Pounds                    | Tons                         |
| D 3          | 490<br>520   | 415             | 525         |   | 1365<br>1440 | .34<br>.34  | 4014<br>4235              | 2,01<br>2,12                 |
| 7            | 925          | 395<br>565      | 880         |   | 2370         | .51         | 4647                      | 2,32                         |
| 8            | 845          | 575             | 720         |   | 2140         | .46         | 4652                      | 2.33                         |
| F 1 1        | 610          | 520             | 625         | ·   | 1755         | .25         | 7020                      | 3.51                         |
| 2<br>6       | 610          | 430             | 565         |   | 1605<br>1165 | .25         | 6420<br>4660              | 3.21<br>2.33                 |
| 8 .          | 460          | 355<br>310      | 430<br>420  |   | 1190         | .25<br>.25  | 4760                      | 5,38                         |
| 8            | 405          | 325             | 430         |   | 1160         | .25         | 4640                      | 2.34                         |
| 10           | 375          | 165             | 160         |   | 700          | .25         | 2800                      | 1.40<br>1.34                 |
| 11<br>12     | 425<br>540   | <b>1</b> 55 260 | 90          |   | 670          | <u>,</u> 25 | 2680<br>4220              | 1.34                         |
| 13           | 830          | 440             | 255<br>480  |   | 1055<br>1750 | .25<br>.25  | 7000                      | 2.11<br>5.50                 |
| 14           | 785          | 450             | 575         |   | 1810         | .25         | 7240                      | 3.62                         |
| H g          | 1080         | 1060            | 1010        |   | 3150         | .29         | 10862                     | 5.50<br>3.62<br>5.43<br>4.71 |
| 9            | 905<br>1205  | 865<br>1140     | 960         |   | 2730         | ,29         | 9414<br>11362             | 4.71<br>5.60                 |
| 11           | 875          | 1150            | 950<br>1025 |   | 3295<br>3050 | .29         | 8472                      | 5.68<br>4.24                 |
| 12           | 1090         | 1295            | 1500        |   | 3885         | .43         | 9035                      | 4/52                         |
| 13<br>16     | 960          | 11140           | 1740        |   | 3840         | •50         | 7680                      | 3.84                         |
| 16           | 590<br>920   | 335             | 415         |   | 1340         | .50         | 2680                      | 1.34                         |
| 17<br>18     | 1065         | 970<br>870      | 755<br>735  |   | 2645<br>2670 | -34         | 7779<br>7853              | 3.89<br>3.93                 |
| 19           |              | 485             | 515         |   | 1610         | .34<br>.34  | 4735                      | 2.37                         |
| 20           | 920          | 595             | 635         |   | 2150         | .34         | 6324                      | 2.37<br>35.16<br>2.90        |
| 21           | 730<br>660   | 375             | 580         |   | 1685         | .29         | 5810                      | 2.90                         |
| 22           | 560          | 370<br>300      | 575<br>500  |   | 1605<br>1360 | .29         | 553 <sup>14</sup><br>4690 | 2.77<br>2.35                 |
| 24           | 565          | 325             | 470         |   | 1360         | .29         | 4690                      | 2.35                         |
| 25           | 280          | 140             | 195         |   | 615          | .29         | 2121                      | 1.06                         |



## Newlands (continued)

|     |        | 194 "1144                             |                 | * **  |       |       |              |                   |
|-----|--------|---------------------------------------|-----------------|-------|-------|-------|--------------|-------------------|
| ALF | 'ALFA  |                                       | YIELD<br>POUNDS |       | •     |       | Ybėld į      | per Acre          |
|     |        | First                                 | Second          | Third | Total |       |              |                   |
| P   | lats   | Crop                                  | Crop            | Crop  | Yield | Aera  |              |                   |
| Y   | 10     | 1080                                  | 500             | 325   | 1905  | .45   | 4233         | 2,12              |
|     | 11     | 105                                   | 000             | 000   | 105   | .45   | 233          | ,12               |
|     | 12     | 600                                   | 150             | 115   | 865   | .45   | <b>1</b> 922 | .96               |
|     | 13     | 110                                   | 215             | 200   | 525   | .45   | 1167         | .12<br>.96        |
|     | 14     | 255                                   | 58              | 40    | 353   | .45   | 784          | .39<br>.59<br>.55 |
|     | 15     | 305                                   | 135             | 90    | 520   | .45   | 1178         | •59               |
| Y   | 16     | 255                                   | 150             | 90    | 495   | .45   | 1100         | •55               |
|     | 17     | 000                                   | 000             | 00    | 000   | .45   | 000          | , 00              |
|     | 18     | 320                                   | 105             | 25    | 450   | .45   | 1100         | •55               |
|     | al and | i                                     |                 |       | 62393 | 13.67 | 4564         | 2.28              |
| Ave | rage   | · · · · · · · · · · · · · · · · · · · | <del></del>     |       |       | ·     | ·            |                   |

The corn on field G which had been cut and shocked the previous week was hauled in, during the week ending September 27, and the product from each plat weightd. The yields obtained were as follows:

| G1 | 695 pounds  | ,36 acre | 1930 pounds per acre |
|----|-------------|----------|----------------------|
| 2  | 915 pounds  | .35 acre | 2542 pounds per acre |
| 3  | 1155 pounds | .36 acre | 3208 pounds per acre |
| 4  | 1630 pounds | .36 acre | 4527 pounds per acre |
| 5  | 1130 plunds | .36 acre | 3138 pounds per acre |

A. C. Cooley arrived at the station September 24, and examined the plans of the field experiments with Powell and Headley. Messers Cooley, Cline and Headley drove to Reno on the afternoon of September 25 for the purpose pf interviewing officials at the University in regard to demonstration work and cooperative experiments. Y 10 to 20 and all of field G were irrigated in order to soften the ground and make it suitable for plowing. The first killing frost occurred September 23. The highest temperature was 89, lowest 33, precipitation 0.

During the week ending October 4, the highest temperature was 70, lowest 28, precipitation .8.

Plats G 1 to 5; D 5; E 7,8 and F 3 and 15 were disked. Plowing of plats 10 to 20 on field Y was begun, Rocks and heavy clay were hauled and deposited around the tanknouse where the soil had been carried away by the winds. The inside of the horse barn was given a coat of white wash.

The old floor of the pump house was taken up, a cement curb was put around the top of the well to a depth of about four feet to prevent possible caving in from top. The old floor of the house was replaced with a new one.



San Antonio.

During the week ending October 4, the maximum temperature was 90, minimum 59, and greatest daily range 27. Precipitation amounted to .02.

Plowing of rotation corn plats was finished. Part of pasture on D 4 was plowed. All corn plats plowed several day ago were disked to kill weeds and young corn. Plats B6-7, 9, 11, and 17 were disked. All milo and oats plats were harrowed. Fields A3, C3, D3, F3, and orchards E3 and B3, part of the field roads, and part of the rotation plats were weeded. Cotton was picked from seventeen of the rotation plats. Yields range from 8 to 110 pounds of seed cotton an acre.

During the week ending October 11, the maximum temperature was 89, minimum 57, and the greatest daily range 28. Precipitation 4.95 inches. A heavy rain of 3.68 inches on Menday followed by rather cloudy weather practically prevented field work during the week. The soil is so well soaked that it required considerable time to dry out to a workable condition after a heavy rain Up to October 11, the precipitation for the year had been 40.22 inches, which is well above the totak rainfall of any year since 1891.

Labor was employed in cleaning up about the grounds, repairing buildings, grinding feed, cutting wood, and hauling gravel.

YUMA.

Cotton picking and ginning on the Yuma project is progressing favorably. The shortage of pickers experienced earlier in the season has been somewhat relieved at present. Normal yields are reported in most sections.

The second picking of Pima Egyptian cotton on plats C-26 27 28 was completed during the week ending October 11. The first picking of the Durango Progenies A-23-24 was begin on October 7.

The harvesting of grain and sorghums, Plats D 29 to 37 was continued during the week.

Up to the present time the following plats have been fall plowed C-3 - 4 -5. D. 1 to 12 inclusive.

Garden vegetables were planted on plat A 12-2 on October 2.

Mr John A. Todd, an economist cotton statistician of the British Government, was a station visitor on October 5th.

Mr Peter Bisset of the S. P. I. office made us a call on October 11th.



## Demonstration on Reclamation Projects

#### Field Notes

Belle Fourche.

During the week ending October 11 nine office conferences were held, four farm visits made and five other conferences held.

Tuesday of this week was spent on the project at Vale and Newell.

At Newell the clerk of the registered Duroc-Jersey hog sale was consulted regarding the averages made and the number of persons purchasing at the sale.

Final tabulation showed that 72 head brought an average of \$61.61 of this number 26 boars averaged \$51.09; 35 gilts averaged \$62.23; and 11 sows averaged \$89.09. In addition to the above 5 registered pigs averaged \$12.50 a head and 25 grade pigs averaged \$8.00 a head. One cow brought \$75.00. The total receipts of the sale were \$4842.00.

Twenty eight farmers bought r egistered hogs at the sale. Most of these being project farmers. A few lots went to the adjoining counties Of Neade, Lawerence and Pennington.

One afternoon was spent in company with a dairy farmer in search of ten fresh milk cows. Twelve were bought later in the week.

Another afternoon was spent in conference with the County Agents of Pennington and Lawrence Counties relative to Black Hills Breeder's Ass'n organization work!

The resent hard freeze, and the first frost of the season, caught many farmers unaware and destroyed quantities of an already short potatoe crop. Potatoes are retailing at \$3.50 per hundred.

The feeder hog situation is quiet. No requests have been received during the week. Recovery of market is anticipated.

Huntley.

Travel was impracticable during the grater part of the week ending October 4 on account of the repairing of the Government owned auto. and a snow storm.

The regular monthly butter fat test of two grade Holstein herds was made. Advice was given in 7 cases of sickness among animals.

Assistance was given in the purchase of 2 grade Holstein cows. Eight office conferences were held and ond comittee meeting was attended. There were in all twenty requestes for assistance and eight farm visits were made.

The dairy men who visited the Shoshone Project last week are to send one of their number to Benver, Wyoming to attend a sale October 14.



Minidoka.

During the week ending September 27, there were no farm visits made and sixty-two calls were received.

Practically the entire week was spent on fair work. Three days were used in attending the State Fair at Boise. The time was well spent, as the fair this year contained by far the best exhibit of live stock ever held at Boise. Charles Bellows, who is a breeder of pure bred shorthorns and a judge of Shorthorns remarked "It certainly is a great show - a most remarkable show - and excells many of the middle western exhibits I have attended this year. In numbers andin quality, the Shorthern Show is superior this year to either Minnesota, Missouri or Nebraska - and they raise great cattle back there." There were 536 cattle at the Fair of these there were 134 shorthorns. The Hereford Exhibit was a strong one. In the open classes most of the prizes were awarded to A. B. Cook of Townsend, Montana, Frank Sullivan & Sons of Rupert, wenseveral firsts and champions in the Shorthorn Idaho Special Class. There were 310 head of hogs exhibited and 105 head of sheep. There were 35 head of Jersey Cattle exhibited and perhaps twice that number in the Helstein classes. A Minidoka County cow won second in the Aged Holstein Cow class.

A number of conferences were held with Extension men at Boise and the matter of securing a county club leader for the two counties was brought up and some favorable action will probably be taken on this matter in the near future.

A meeting of stockmen and extension workers at the Boise Chamber of Commerce was attended for the purpose of arranging a midwinter schedule of association meetings and arrangements were made to hold the second annual midwinter consignment sale in connection with the mid winter association meetings. Plans now are for the consignment of fifty head of Herefords by the Southern Idaho Herefords Breeders. Association and approximately forty-five head of Shorthorns and some hogs.

During the week ending October 4 there were nine farm visits made sixty-seven office calls received, and one hundred and forty-three circulars sent out.

Several conferences were held with the Mindoka County Agent during the week for the purpose of planning the re-organization of the Farm Bureau. Owing to the fact that the farm bureau has been in a rather unsettled condition during the past year, it is quite a problem to make the proper plans.

Mr. W. T. McCall, Club leader for the State is hopeful of placing a club leader in Jerome and Minidoka counties. It is hoped that appropriations can be made for this work between two counties as Boys' and Girls' Club work is a great stimulus to the livestock development.



### Minidoka (Continued)

Miss Nina B. Huyck has been on the project this week conducting clothing demonstrations with the women of Cassia and Minidoka Counties.

One day was spent during the week in going over Mr. H. F. Deardorff's ranch at Malta, Idaho. Mr. Deardorff is President of the Southern Idaho Hereford Breeders' Association and has fifty three head of specially fine Herefords on his ranch. Plans were discussed with him about the advisability of conducting a midwinter sale in conjunction with the livestock meeting to be held at Pocatello in January.

Mr. H. R. Lochry was on the Project one day during the week and will return again in a few days to take up in detail the starting of the Rupert Cheese Factory.

Three days of extremely cold wet weather hamicapped field work but gave the writer an oppostunity to catch up all back reports.

Much of the third cutting of alfalfa hay is down as well as a good deal of clover.

During the week ending October 11 sixty-three office calls were received and twenty-four farm visits were made. Three Specialistescalled at the office which consumed four days time in work mecessar y to the development of extension work on the Project.

Mr .Byron Hunter who has charge of the Farm Management Department at the University of Idaho, spent a day on the Project and we undoubtedly will secure several representive far-mers to keep an actual cost of production on their farms for one year as a result of this visit.

Dr. W. A. Sullivan of the Bureau of Arimal Industry called to investigate a wase of hog cholera which proved to be indigestion. So far this season, no outbreak of hog cholera has occurred on the project.

Mr. A. C. Cooley spent two days on the project and a number of farmers and business men in Cassia and Minidoka Counties were visited to talk over the various phases of the development of the livestock industry here. Several bankers were also visited and they expressed themselves quite favorable to a rather intensive campaign for the encouragement of the dairy industry. One banker stated that he would much rather finance a man in the diary business than any other branch in the livestock farming.

Arrangements were made during the week to go to Star Valley, Wyoming with several farmers to purchase Holstein cattle for the Minidoka Project. It is reported that prices are very reasonable there this year and if the present venture is successful undoubtedly more stock will be purchased for this vicinity, Star Valley has in the past purchased perhaps between three and four hundred head of high grade Holsteins and pure breds from eastern states ans the stock which they have is the type desired for farmers here.



Newlands.

Making sunflower silage on a rather large scale for this locality will be undertaken by a rancher in the Stillwater section. About twenty acres of sunflowers have been grown. The field was planted to sunflowers and a good stand obtained but little furthur attention was given. The irrigation was also poorly attended to, but in spite of this there will be about ten to twelve tons to the acre.

One interesting thing about the crop is the fact that the crop is still standing fresh and green after several heavy frosts and freezing weather, while all other annual crops are killed down.

A two hundred and fifty ton silo is being erected to hold this crop of sunflower silage. This silo will consist of two layers of half-inch by six inch sheathing with tar paper between, tacked to two by four studding placed sixteen inches apart. This silo is intended as a temporary structure.

It is hoped that this lot of sunflower silage will be a success because the crop is the easiest of all annual crops to grow locally and the successful "siloing of it will greatly stimulate the use of silos in the project.

An attempt to make sunflower silage on another ranch last year was not very satisfactory as the silage developed a very high acidity and was not relished by the cattle to which it was fed.

The Local hay market continues unchanged there being practically no sales at any price.

An effort is being made through the local Commercial Club to get some reduction in freight rates to Montana and Wyoming points similar to the rate given other localities which ship into this territory.

North Platte.

During the week ending October 11 there was considerable work done in the interest of dairying. Assistance was given in the filling of three silos which had been built during the summer, assistance was also given in laying out the gutters and placing the stanchions in a new barn, and also in cleaning up one of the farms on which contagious abortion has started.

While the dairying industry has not had a boom on this project as some other industries have had and then dropped back in production below where they were formerly, it has had a good steady groth and is gradually coming to be looked upon as of importance. The men who have had good cows and have cared for them for the past three years now have good heards and good improvements.

The swine industry on this project is smaller than a year ago and until conditions become more stable most of the farmers think that the number of hogs will continue to decrease.

Quite a number of the farmers have begun feeding lambs and a fer of the cattle feed lots are now filled with two and three year old steers but there are very few men here feeding cattle as compared with last year at this time.



### Shoshone.

During the week ending October 4 four farm visits were made, twenty office calls were received and nineteen other conferences were held.

One farmer was assisted in the purchase of a registered Jersey Bull from the Montana Agricultural College.

The local veterinarian has arranged to sell farmers Blackleg Aggressin at twenty-three cents per dose and to lend the farmer a syringe with which to inoculate the cattle. It is claimed that in using this vaccine there is no danger of giving cattle the blackleg disease and that one dose immunizes the cattle for life. This office is investigating the merits of this remedy.

Considerable attention was given this week to the management of the Powell Cooperative Creamery. The creamery is in good financial condition but is not paying as much as it should for butter fat. That is its existence is depending altogether on the loyalty of the farmers.

Talked to the agricultural class at the High School on crop rotation in relation to livestock on the farm.

Arranged for a cooperative shipment of two cars of cattle and two cars of sheep.

During the week ending October 11, three farm visits were made and forty-six office calls were received seven other conferences were held and one newspaper article was written.

Mr. G. A. Wright, agriculturist for the Huntley Project, brought five farmers to this project to see registered Holstein callte which are for sale. Three herds were visited but no purchases were made at the time.

Two cars of cattle and two cars of sheep were shipped to Omaha;

twenty-eight farmers cooperating in the shipment.

The state poultry specialist called about marketing, feeding and breeding poultry and marketing eggs. Plans were made for marketing eggs in sealed cartons with the name of the producer on the carton. It is planned for the Powell Cooperative Creamery to handle these eggs. When this method of marketing has been started, the poultry specialist expecttto assist in culling the flocks.

Over a car load of stock hogs have been listed for shipment this week.

Assistance is being given two farmers in the purchase of four cars of feeder lambs.



Yakima.

Nine farmers were visited, two conferences held and three calls for assistance answered during the week ending October 4.

Cold and rain during the first three days of the week prevented extensive traveling in the valley. Two days were spent in the vicinity of Sunnyside and Grandview.

Visited the farm of Mr. Dwindell, on Outlook, as followeup work on the report of sickness in hogs. This heard was visited two weeks ago when cholera was suspected by the owner but no evidence of cholera was present at that time, and the trouble was diagnosed as digestive trouble due to too much coarse feed being fed. Since changing the system of feeding no more hogs have been lost and all except one have chtielyirecovered and a re almost ready for market.

Mr. Charles Bull of Mabton asked for assistance in treating two pure bred Hereford heigers for lumpy jaw. As this trouble had only started it was easily checked. Mr Bull reports that this difficulty is quite frequent at this time of the year when the animals get the infection from eating fox tail grass which at this season is getting dry and the beards pierce the membrane of the mouth and infect the fleshy portion of the jaw with the fungus.

Eight farm visits were made, three office calls were received and two conferences were held during the week ending September 27.

On monday of this week a carload of feeder ewes were located for farmers in the Port Angeles vicinity and also five pure-bred Hampshires ewes and four bucks were sent to County Agent Alleman. Plans are being formulated for the beginning of the cow testing work in the Yakima Valley. Since the greater portion of the larger dairy herds have been disposed of it is a question whether a sufficient number of cows can be located to organize such an association. County Agent Price is also of the same opinion but a canvass of the situation will soon be made. At present this office is making a livestock census of the Tieton unit and later one will be made of the Sunnyside unit. This information was originally secured by the ditchriders on the Project.

One call was answered in the Naches district where information : was wanted on alfalfa. The infection proved to be fungus leaf spot disease and apparently is nothing very serious.

Friday Morning was spent enroute to Hermiston, Oregon and Friday afternoon with H. K.Dean of the Umatilla Experiment Farm. Saturday was occupied by attending the Annual Field Day of the Umatilla Experiment Farm where acquaintance was made with several County Agents from Eastern Oregon and Field men from the Oregon Agricultural College. While the weather was very unfavorable for such a gathering, a very large and appreciative crowd of farmers and their families attended the annual field day exarcises. The farmers of the district seem to take great interest in the Experiment Farm and are profiting from the results secured from the experiments carried on there.



OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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Of the Offices of

WESTERN IRRIGATION AGRICULTURE
And
DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

October 25, 1919.

No. 17

### Western Irrigation Agriculture.

### Field Notes.

San Antonio.

During the week ending October 18, the maximum temperature was 84, minimum 53, and greatest daily range 21. Wet weather continued during the week, rain falling on five days, the total precipitation amounting to 2.53 inches. The total precipitation for October to date amounts to 7.48 inches, which is well above the record for October since 1891.

Labor was employed at hauling gravel, repairing buildings, cutting wood and cleaning up about the grounds. Considerable time was spent killing mice which have increased to such numbers that they are very much a nuisance. Reports indicate that they are numerous everywhere in this vicinity.

### Demonstrations on Reclamation Projects.

### Field Notes.

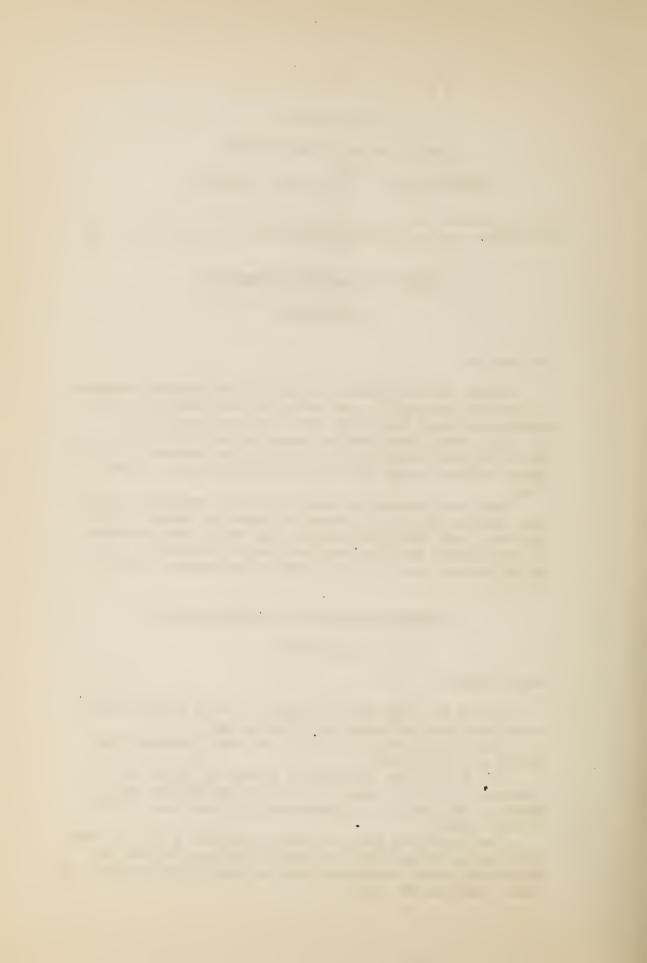
Belle Fourche.

During the week ending October 18, nine office conferences were held and seven farm visits made.

Heavy rains the fore part of the week prevented much travel on the project.

Mr. F. R. Cock, Rambouillet breeder of Belle Fourche, announces his first annual ram sale to be held at Belle Fourche, October 28. Approximately 250 rams will be sold at this time.

The Experiment Farm at Newell will hold a sale of registered Duroc-Jersey gilts and boars, Wednesday October 29. This sale is held especially for the benefit of the boys' and girls' "Sow-litter Club".



Belle Fourche (Continued).

Hay is selling around the \$15. mark. A good deal has been sold to eastern buyers at this figure, who are baling it and shipping east.

The growers of feeder hogs are still asking around  $16\phi$  for hogs and practically no sales. Buyers will hardly pay over the Omaha top for hogs here. 14-1/2 and  $15\phi$  would sell all the hogs now available. The Omaha market is \$14.50.

Lambs are being bought and put into local feed lots at from  $10\phi$  to  $12\phi$ . A number will be fed in this vicinity this fall. It is early to estimate the number to be fed out. Quite a bit of corn and beet pulp will be fed this year. Beet pulp is selling at \$35. a ton. This is the dried pulp.

Huntley,

During the week ending October 18, thirteen farm visits were made and fifteen requests for assistance were received. There were eleven conferences and two committee meetings. Five milk samples were tested.

In company with Plato Pickens, Huntley, Mont., a Holstein sale was attended at Deaver, Wyo., October 14. Mr. Pickens bought three registered cows for himself and a purebred heifer calf for each of two other men. The cattle offered for sale showed evidence of poor care and lack of feed, but the breeding is good. The price of cows ranged from \$150. to \$175. The heifer calves sold for \$50. each. The dairymen for whom the calves were secured intend to go into the pure-bred business more extensively in the near future.

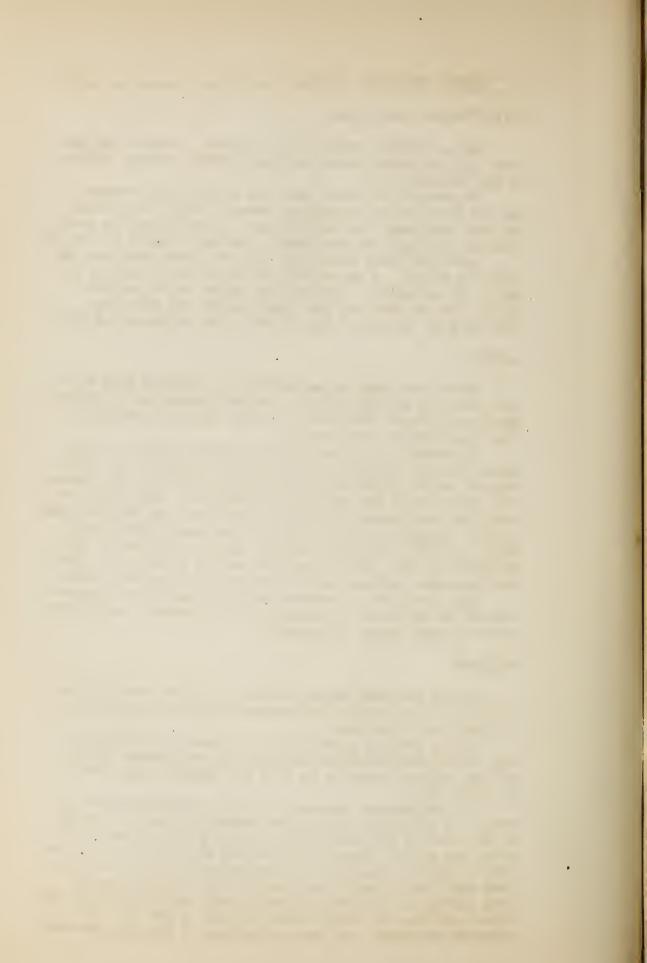
The preventative treatment against blackleg was demonstrated on one farm, 25 calves being vaccinated. Advice was given in seven cases of sickness.

Minidoka.

During the week ending October 18, there were 109 office calls, one meeting was attended with six present, and 28 farm visits were made,

Monday evening a meeting of the board of directors of the Rupert Cheese Factory was held and the general spirit of the meeting seemed to be that the factory would shortly be under way.

On the previous Saturday a meeting was attended of the Executive Committee of the Farm Bureau. A general summary of the work of the Farm Bureau for the past six months was given and at the close of the meeting one of the men who has been in direct opposition to farm bureau work for the past year and a half, expressed himself very favorably to the farm bureau and said that it was a thing which should be continued and that he would assist as much as possible in developing the work. The chief criticism of the farm bureau



in this county was that the officials have not been taking an active part this year. During the coming year it is hoped to rectify this condition.

One day was spent at Burley in conference with a banker and a farmer regarding purchasing dairy cattle. A community in Cassia County seems very willing to cooperate with the county agent and this office in developing their district as a dairy center. It has been frequently stated by dairy authorities that in starting in the dairy business, the first essential is a good pure bred bull. Five men in the community of View paid \$600. for a good pure-bred Holstein bull last Spring, and it is felt that they have value received for their money. There are very few, if any, pure bred bulls in the State of Idaho with the breeding of this one purchased. Each man purchased a pure-bred Holstein heifer through the Cassia County Calf Club, then the problem of feed was considered and two concrete silos were built. These were partially filled with especially good corn silage. To take care of this winter feed, Mr. Stalker decided to purchase some dairy cows. A scarcity of feed in Star Valley, Wyoming, caused us to investigate the territory and with the result that fourteen pure bred Holsteins were purchased at an average dist of \$178, per head. These animals were all bred to a pure-bred Holstein bull, Some of them are Wisconsin breeding. When Mr . Stalker gets the animals on his farm, a milk sheet will be kept and the stock tested once a month, as well as a cost of production record kept on the herd, in an endeaver to ascertain exactly what profits can be made in the dairy business under our conditions.

Newlands.

During the past week some time was devoted to arranging for a cooperative shipment of hogs. There are few hogs on feed in the project this fall. The present San Francisco quotations mean about  $11-1/2\phi$  per pound for prime hogs in this valley, with grain close to \$70. per ton. The marketing cost, including shrinkage, amounts to about 2 cents per pound for hogs shipped to San Francisco. All prices here are based on San Francisco quotations,

Contagious abcrtion has shown up in several herds recently, although it is by no means as common as it was four

or five years ago.

Mr. Johnston, of the Harmon district, had the misfortune of losing his fine Jersey bull, which died of bloat a few days ago. This bull was closely related on both the sire and dam's side to the would champion producer, Vive la France. The bull was purchased through this office and his death represents a big loss to the Jersey broad locally. Efforts are already being made to secure another bull of same breeding.



Newlands (Continued).

The present high prices of butter fat and slow demand for alfalfa hay has stimulated the interest in dairying. Good cows are much in demand, prices ranging \$125. and up for good cows.

There are several parties wanting registered bulls, applications being mostly for Holsteins. An effort is being made now to locate young bulls backed by good official production.

During the week ending October 11, thirty-three calls for assistance were received and nine visits were made to farms.

North Platte.

During the week ending October 18, nine farms were visited at the request of the owners. This is the season of making preparations for the winter feeding of sheep and cattle and at seven of the farms visited assistance was given in the arrangement of the feed racks, water troughs, and pens. One herd of hogs was visited this week which were sick as a result of feeding grou nd barley dry. These hogs were in very bad condition. Since changing the ration only one has died out of the herd of 65 head, and the others are doing nicely now. They are now on alfalfa pasture and have access to a self-feeder of ground corn and barley mixed.

The Scottsbluff Creamery at some times in the past refused to take some of the farmers' cream when they were getting all they could use. They have also been negligent about reporting a raise in price. At a joint meeting of the dairy association and the Board of Directors of the Creamery, the latter agreed to the following: to pay the highest market price for butter fat at all times; to mail out quotations of price changes on the day the changes take place; to meet the price of all legitimate competition, and to buy all of the cream produced in the valley at all times. The members of the dairy association agreed to sell all of their butter fat to the local creamery. This understanding between the two organizations will be of benefit to all people in the valley, for now the cream will be bought here and made into butter and the butter sold here, instead of shipping the cream out of the valley and the butter into the valley.





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### Of the Offices of

# WESTERN IRRIGATION AGRICULTURE And DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI. November 1, 1919.

18

No.

### Western Irrigation Agriculture.

### Field Notes.

San Antonio.

A rain of 1.20 inches fell on Monday, October 20, and made work in the field practically impossible during the week ending October 25. Cloudy weather prevailed so that drying out of the soil was slow. The maximum temperature was 88, minimum 55, and the greatest daily range 16.

Labor was employed in cleaning up the stack yard, hauling and cutting wood, cutting weeds on the grounds, repairing buildings and machinery, grinding feed and shelling seed corn.

### Demonstrations on Reclamation Projects.

### Field Notes.

Huntley.

During the week ending October 25, there were eleven farm visits made and six conferences held. Seven requests for assistance were received.

Two days were spent with Mr. A. C. Cooley going over the work on the Huntley Project and planning future work. It is planned to take up the promotion of dairying more extensively and along more definite lines.

Some time was given to getting matters lined up to secure data upon sheep feeding during the next three months. Very little sheep feeding has been done in the past and it is desirable to know whether it may be profitable under conditions found here.

Shoshone.

During the week ending October 18, eight farm visits were made, thirty-one office calls were received and five other conferences were held.



Shoshone (Continued).

With three project farmers, a trip was made to Ralston and Cody in search of feeding lambs. Six leading sheep men were visited but no lambs were found, all of the feeding lambs having been shipped. As a rule, the sheep men dispose of their lambs before project farmers are ready to buy and the short range this year made this condition worse. Project farmers do not like to take time to investigate the market until after potato and beet harvest.

The herder for the Shoshone Livestock Association started with the project herd from the Forest Reserve this week. Storms in the mountains are causing serious trouble in getting the herd out.

With the state poultryman, two farm visits were made regarding poultry breeding and feeding, and the marketing of poultry and eggs.

A number of hog growers are ready to sell their hogs as stockers now, but with the rapid decline of the hog market, buyers seem to be holding off.

During the week ending October 25, thirty-eight office calls were received and four other conferences were held.

The returns on the two cars of cattle shipped two weeks ago were figured. Due to the heavy run the cattle were not sold until five days after they reached Omaha. The expense of shipping was 83 cents per hundred, not counting shrinkage.

Two hog buyers were in town this week looking for stock hogs. One of them shipped a load at twelve and thirteen cents. The other buyer is paying twelve cents, the hogs to be delivered when he can get cars. Cars must be ordered at least two weeks before they are to be loaded.

Assistance was given in distributing cattle of Shoshone Live Stock Association brought in from the Forest Reserve this week. The trip down from the mountains was made in a severe storm and a large part of the herd strayed on the way, necessitating a second roundup, which the herder will make as soon as possible. The cattle which have been delivered are mostly in poor condition. It would probably have been better if the cattle had been brought home sooner.

Mr. Cooley spent two days on the project during the week.

Yakima.

Four office calls were received, one conference was held, one call for assistance was answered, and fourteen farm visits were made during the week ending October 11.



### Yakima (Continued).

On Wednesday of this weak, with County Agent Price. a trip was made to Prosser, where a meeting had been called for dairymen on the Sunnyside Project, for the purpose of starting some work on keeping dairy farm records. County Agent Lamson, Mr. Bean and Professor Severance, of Pullman, Washington, were present. Six dairymen were present but others have declared themselves in favor of keeping records of their dairy farm operations, although they were unable to be present at the meeting. This work is being carried on in cooperation with the Extension Division of the Washington State College, under the direction of Professor Severance, Farm Management Demonstrator. This work is being done throughout the State of Washington.

Five farm visits were made and four conferences were held during the week ending October 18,

Mr. A. C. Cooley and Mr. R. W. Allen visited Yakima three days this week. Considerable time was spent in visiting the different parts of the Project in Yakima and Benton Counties and the Irrigation Experiment Station at Prosser.

The early part of the week was spent visiting dairymen and farmers on the Tieton Project at Tieton and Cowiche.

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OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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Of the Offices of

WESTERN IRRIGATION AGRICULTURE
And
DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI. November 8, 1919. No. 19

### Western Irrigation Agriculture.

### Field Notes.

Newlands.

### Report for Three Weeks Ending October 25, 1919.

The plowing of plats from Y-10 to 16 was completed. Twenty tons of gypsum to be used in alkali reclamation experiments was purchased. The fence posts about the farm buildings were whitewashed and the grounds in general were cleaned up.

Manure was applied to E-3 and 8 and F-1 and 13 at the rate of 15 tons per acre. Gypsum was applied to E-3, 8: F-1, 4, 13 and 16, at the rate of 1000 pounds and to D-4 and 8 at 2000 pounds per acre.

The following climatic conditions prevailed during the three weeks:

| For the week ending                       | October 11. | October 18. | October 25. |
|---|-------------|-------------|-------------|
| Highest temperature<br>Lowest temperature | 76<br>24    | 75<br>27    | 76<br>19    |
| Precipitation                             | .00         | .00         | .11         |

The potato experiments on plats H-3 and 4 were harvested. Among these experiments were included a "Time-of-Planting" test; variety test; distance in the row test; character of cutting of seed pieces; size of seed and treatment of eelworm seed. The yields during the season of 1919 were for some reason lower than the average of former years. All the experiments except the variety test were duplicated or triplicated. The detailed results are shown in the following tables.



Newlands (Continued).

Distance of planting test. -- Seed pieces were dropped in the row at distances of 6, 12, 18 and 24 inches. The average yield per 100 foot row of these plantings were found to be as follows:

| 6  | inch | 81 | pounds |
|----|------|----|--------|
| 12 | 11   | 72 | 11     |
| 18 | 11   | 81 | 11     |
| 24 | 11   | 65 | , 11   |

The irregular results indicate that a large experimental error exists and they are therefore not very conclusive. The indications are that the usual planting distance of 18 inches is approximately correct.

Time of planting test. -- Plantings were made for six consecutive weeks beginning with April 15. The average yields of marketable potatoes per 100 foot row were as follows:

| April | 15 | 32 | pounds | 76% | stand. |
|-------|----|----|--------|-----|--------|
|       | 22 | 35 | 11     | 93% | 33     |
|       | 29 | 31 | 17     | 78% | 11     |
| May   | 6  | 26 | 11     | 78% | 11     |
| ·     | 13 | 49 | 11     | 75% | 11     |
|       | 20 | 19 | 11     | 43% | 11     |

The yield obtained from the planting made on May 13 was decidedly higher than the others. In the two tests of previous years the highest yields were obtained from plantings made about the first of May.

Whole vs. cut seed and size of seed pieces. -- On experiment was conducted for the purpose of comparing the use of whole, halved and quartered seed on the yield of the resulting crop. For this purpose potatoes were selected as nearly as possible in size. Plantings were made in triplicate. The average yields of marketable potatoes and per cent of stand obtained were as follows:

| Whole seed     | 89 pounds | 91% stand |
|----------------|-----------|-----------|
| Halved seed    | 63 "      | 90% "     |
| Quartered seed | 57 "      | 89% "     |

In this experiment the whole seed produced better than the cut seed, and the halved seed produced more than the quartered. In an experiment of this character where unequal quantities of seed are used according to the size of the seed pieces it is necessary to calculate the net yield by subtracting the amount of seed used from the yield. When this is done the yet yields are found to be as follows:



Newlands (Contined)

Whole 75 pounds Halved 56 " Quart'd 53 "

In the second experiment, comparing whole and cut seed, the size of the seed pieces was taken into consideration, the seed pieces having been graded into large, medium and small tubers. Whole and cut seed of each of the three grades was prepared and planted in triplicate. The percent stand, yields and net yields of marketable tubers were as follows:

|                  | Percent stand.   | Yield pounds. | seed pounds. | Net yield pounds. |
|------------------|------------------|---------------|--------------|-------------------|
| Large whole      | 6 <b>7</b><br>66 | 46<br>46      | 31<br>7      | 15<br>39          |
| Medium whole cut | 72<br>74         | 37<br>20      | 13 .         | 24<br><b>1</b> 5  |

The planting of whole seed of large potatoes does not appear to be advisable because of the great quantity of seed used.

Whole seed of the medium sized potatoes returned a slightly larger net yield than the cut seed.

Large potatoes cut produced a decidedly higher yield than either medium or small seed. It appears that the use of small potatoes for seed is not as profitable as the use of larger seed.

Treatment of eelworn infested seed. -- In this experiment potatoes heavily infested with eelworms were selected for seed and given treatment by heat for varying lengths of time and at different temperatures. The plantings were made in duplicate and a row of non-infested potatoes was planted every third row. These check rows were used as a measure of the productiveness of the land area between any two rows, and the yields of the infested seed were calculated in percentage of the yield of the two nearest check rows. The soil was not uniformly productive and this method. increases the accuracy of the results over what they would be without the use of the check rows.

The following results are summarized from the detailed report:



Newlands (Continued).

Relation of yield of treated seed to yield of check rows--percent.

|                          | Series I | Series II | Average |
|--------------------------|----------|-----------|---------|
| Untreated 30°C - 24 hrs. | 37       | 18        | 28      |
|                          | 44       | 57        | 50      |
| 35° C 12 "               | 35       | 61        | 48      |
| 24 "                     | 25       | 47        | 36      |
| 48 "                     | 12       | 16        | 14      |
| 40° C 6 "                | 32       | 52        | 42      |
| 12 "                     | 27       | 40        | 34      |
| 24 "                     | 17       | 40        | 29      |
| 36 "                     | 59       | 45        | 52      |
| 45° C 6 "                | 31       | 22        | 27      |
| 12 "                     | 12       | ?         | 12      |

It appears that treatments of 30° 24 hrs; 35° 12 hrs; 35° 24 hrs; 40° 6 hrs; and 40° 12 hrs. were beneficial and resulted in a higher yield. The relatively high yield at 40° for 36 hours is irregular and cannot be accounted for.

In general it may be considered that prolonging the heat treatment or increasing the temperature above 40° has the effect of reducing the yield.

The effect of the treatments on infection in the resulting crop will be ascertained later.



Newlands (Continued),

# Potato Experiments in 1919.

|                    |                      | Yie      | lds      | , (Pour  | nds)     |          |      |                  | Lbs.per 100 ft. row. |                |                      |  |  |
|--------------------|----------------------|----------|----------|----------|----------|----------|------|------------------|----------------------|----------------|----------------------|--|--|
| •                  | Series               | s I.     |          | Series   |          |          |      | Avg.both series. |                      |                |                      |  |  |
|                    | Market-              | Culls    | Total    | Market-  | Culls    | Total    | Len- |                  | Culls                |                | •                    |  |  |
|                    | able,                |          |          | able,    |          |          | gth  | ket+             |                      | al             | cent                 |  |  |
|                    |                      |          |          |          |          |          | of   | able             |                      |                | stand                |  |  |
| Distance           |                      |          |          |          |          |          | rows | ·                |                      |                |                      |  |  |
| Distance of        |                      |          |          |          |          |          |      |                  |                      |                |                      |  |  |
| planting. 6 in row | 106                  | 49       | 155      | 88       | 30       | 118      | 120  | 81               | 33                   | 114            | 66                   |  |  |
| 12 " "             | 77                   | 42       | 119      | 95       | 30<br>26 | 121      | 120  | 72               | 28                   | 100            | . 80                 |  |  |
| 18 " "             | 99                   | 19       | 118      | 95       | 21       | 116      | 120  | 81               | 17                   | 98             | 85                   |  |  |
| 24 11 11           | 86                   | 28       | 114      | 70       | 20       | 90       | 120  | 65               | 20                   | 85             | 90                   |  |  |
|                    |                      |          |          |          |          |          |      |                  |                      |                |                      |  |  |
| Time of            |                      |          |          |          |          |          |      |                  |                      |                |                      |  |  |
| planting.          |                      |          |          |          | _        | -1.      | -    |                  | _                    | -7-7           | 76                   |  |  |
| April 15           | 47                   | 8        | 55<br>63 | 29       | 56       | 34       | 120  | 32               | 5                    | 37<br>42       | 76<br>93             |  |  |
| April 22           | 53                   | 10       | 6.3      | 30       |          | 36<br>41 | 120  | 35               | 9                    | 40             | 72                   |  |  |
| April 29           | 53<br>43<br>36<br>74 | 12<br>20 | 55       | 31<br>26 | 10       | 32       | 120  | 31 26            | 11                   |                | 78<br>78<br>75<br>43 |  |  |
| May 6<br>May 13    | 20<br>7)1            | 6        | 56<br>80 | 7.0      | 6        | 50       | 120  | 49               | 5                    | 37<br>54<br>24 | 75                   |  |  |
| May 20             | 30                   | 6        | 34       | 15       | 5        | 20       | 120  | 19               | 5                    | 24             | 43                   |  |  |
|                    |                      |          | ٦.       | 40       | 7        |          |      |                  |                      |                |                      |  |  |

## Variety Test.

| VARIETY.  | Len-<br>gth<br>of<br>row. | Lus.,<br>Mar-<br>ket-<br>able             | Y interpretation |  | Mar-                           | OO Lt.   |  | cent   | Theo-<br>reti-<br>cal<br>yield<br>based<br>on<br>100%<br>stand | 50% ac- tual plus 50% theo- retical yield.               |
|---|---------------------------|---|------------------|--|--------------------------------|--|--|--|--|--|
| Irish Cobbler Early Freeman Producer Burbank AmericanWonder Earliest ofAll Colorado Pearl NettedBurb'k (Select) Blue Victor Scotch Rose | 180                       | 199<br>197<br>179<br>80<br>82<br>55<br>91 | 13               | 135<br>105<br>237<br>237<br>236<br>97<br>95<br>64<br>112<br>87 | 6325555<br>55555<br>46<br>3457 | 12<br>7<br>11<br>11<br>16<br>9<br>7<br>66<br>7 | 75<br>58<br>66<br>66<br>54<br>53<br>40<br>31<br>24 | 85<br>68<br>88<br>91<br>82<br>72<br>80<br>57<br>70<br>68 | 74<br>76<br>62<br>60<br>61<br>62<br>57<br>60<br>36<br>25       | 69<br>64<br>59<br>58<br>56<br>54<br>52<br>47<br>31<br>21 |



Newlands (Continued).

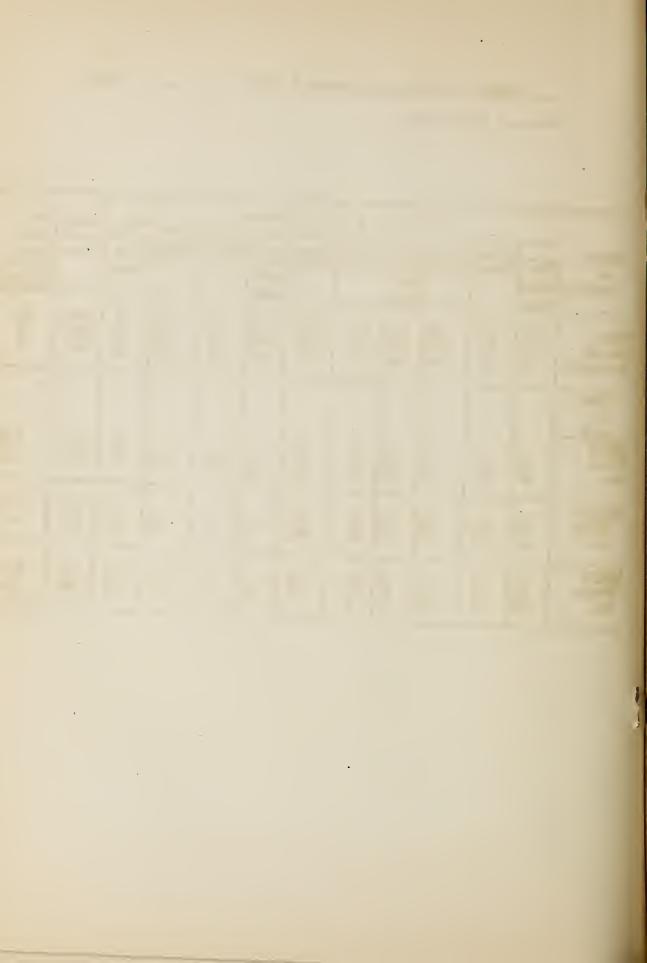
Treatment of Eelworm Infested Seed. (60 ft, rows).

|                        |            |               |                          | ·                                     |           |
|------------------------|------------|---------------|--------------------------|---------------------------------------|-----------|
|                        | Per-       | Actual        |                          |                                       | Relation  |
|                        | cent       | yield         |                          | yield if                              |           |
| Treatment.             | stand.     | pounds        |                          | planted                               | yield to  |
| II ca dinono,          |            |               | row                      | to checks                             |           |
|                        |            |               | pounds                   | pounds                                | yield.    |
|                        |            |               |                          |                                       | percent.  |
| Check                  | 0.7        | 25.0          | 110                      |                                       |           |
| Untreated              | 98<br>67   | 25.0          | 42                       | · · · · · · · · ·                     | 77        |
| 30° C - 24 hrs         | 80         | 19.5          | 32                       | 87                                    | 37<br>144 |
| Check                  | 92         | 34.0<br>106.0 | 57                       | 131                                   | 44        |
| 35° C-12 hrs.          | 82         | 77.0          | 176                      | 7.56                                  | 70        |
| 35° C-24 hrs.          |            | 33.0          | 55<br>34                 | 156                                   | 35        |
|                        | 72         | 20.5          | 34                       | 136                                   | 25        |
| Check 35° C-48 hrs.    | 100        | 69.5          | 116                      |                                       |           |
| )5° 0-48 hrs.          | 25         | 8.5           | 15                       | 126                                   | 12        |
| 40° C - 6 hrs.         | 57         | 26.5          | 44                       | 137                                   | 32        |
| Check<br>40° C-12 hrs. | 100        | 88.5          | 147                      | 7 F 7                                 | 07        |
| 40° C-12 hrs.          | 57<br>60   | 24.5          | 41                       | 153                                   | 27        |
| Check                  |            | 16.0          | 27<br>164                | 158                                   | 17        |
| 40° C-36 hrs.          | 100<br>60  | 98.0          |                          | 7                                     | #O        |
| 45° C-6 hrs.           | 44         | 56.5          | 94<br>48                 | 159                                   | 59<br>31  |
| Check                  |            | 29.0          | 14g                      | 153                                   | )±        |
| 45° C-12 hrs.          | 97<br>10   | 89.0          |                          | 124                                   | 12        |
| Check                  | 92         | 9.0           | 15                       | 754                                   | 4.0       |
| Untreated              | 92<br>48   |               | 190                      | 104                                   | 18        |
|                        | 92         | 11.5          | 19                       |                                       | 57        |
| 30° C-24 hrs.          |            | 37.0          | 62                       | 109                                   | 71        |
| Check                  | 95         | 68.0          | 113                      | 207                                   | (2        |
| 35° C-12 hrs.          | 70         | 38.0          | 63                       | 103                                   | 61        |
| 35° C-24 hrs.          | 60         | 26.0          | 43                       | 92                                    | 47        |
| Check 35° C-48 hrs.    | 87         | 49.0          | 82                       | * * * * * * * * * * * * * * * * * * * | 16        |
| 40° C-6 hrs.           | 23         | 7.0           | 12                       | 74                                    |           |
|                        | 80         | 20.5          | 334                      | 65                                    | 52        |
| Check                  | 100        | 34.0          | 57                       |                                       | )10       |
| 40° C-12 hrs.          | 30         | 12.0          | 20                       | 50                                    | 40        |
| 40° C-24 hrs.          | 43         | 10.0          | 17                       | 42                                    | 40        |
| Check                  | 78         | 21.0          | 35<br>13<br>5<br>17<br>3 |                                       |           |
| 40°C-36 hrs.           | 30         | 7.5           | 13                       | 29                                    | 45        |
| 45° C-6 hrs.           | 28         | 3.0           | 5                        | 23                                    | 22        |
| Check                  | 75         | 10.0          | 17                       |                                       |           |
| 45 C-12 hrs.           | <b>7</b> 5 | 1.5           | 3                        |                                       |           |
|                        | ,          |               |                          |                                       |           |



Newlands (Continued).

|               | Y 1 0 1 d s (Porrids). |          |                           |                  |          |            |      |          |             |            | Leng- | Amt.    |
|---------------|------------------------|----------|---------------------------|------------------|----------|------------|------|----------|-------------|------------|-------|---------|
| Manner        | Manner Series I.       |          |                           |                  |          | Series II. |      |          | Series III. |            |       | seed    |
| of            | Mar-                   | Culls    | Total                     | ž .              | Culls    | Total      | Mar- | Culls    | Total       | cent       | row.  | used    |
| Cutting       | ket-                   |          |                           | ket-             |          |            | ket- |          |             | stand      |       | 100 ft. |
|               | able                   |          |                           | able             | -        |            | able |          |             |            |       | Pounds. |
| Whole         | 158                    | 36       | 194                       | 170              | 54       | 224        | 156  | 23       | 179         | 91         | 180   | 14      |
| Halved        | 88                     | 29       | 117                       | 128              | 33       | 161        | 124  | 37       | 161         | 90         | 180   |         |
| Quartered     | 82                     | 22       | 104                       | 106              | 31       | 137        | 118  | 37<br>26 | 142         | 89         | 180   | 7       |
|               |                        |          |                           |                  |          |            |      |          |             |            |       |         |
| Size          |                        |          |                           |                  |          |            |      |          |             |            |       |         |
| of            |                        |          |                           |                  |          |            |      |          |             | 1          |       |         |
| seed<br>Small |                        |          |                           |                  |          |            |      | :        |             |            |       |         |
| Whole         | 35                     | 34       | 59                        | 29               | 35       | 64         |      |          |             | <b>7</b> 9 | 120   | 6.7     |
| Cut           | 35<br>34               | 34<br>27 | 69<br><b>61</b>           | 29<br><b>3</b> 2 | 35<br>28 | 60         | 13   | 21       | 34          | 79<br>72   | 120   | 3.3     |
|               |                        |          |                           |                  |          | 1          |      |          |             | -          |       |         |
| Medium        |                        |          |                           |                  |          |            |      |          |             |            |       | 20.5    |
| Whole         | 52<br>35               | 31<br>25 | ₹3<br>60                  | 35<br>20         | 34<br>21 | 69<br>41   | 1    |          |             | 72<br>74   | 120   | 12.5    |
| Cut           | 35                     | 25       | 60                        | 20               | 21       | 41         | 17   | 31       | 48          | (4:        | 120   | 14.4    |
| Large         |                        | -        | anayor respondence deriva |                  |          |            |      |          |             |            |       |         |
| Whole         | 515                    | 314      | 38                        | 55               | 31       | 86         |      |          |             | . 67       | 120   | 31.2    |
| Cut           | 5 <sup>1</sup> 4       | 9        | 53                        | 55<br>45         | 31<br>9  | 54         | 21   | 19       | היל         | 66         | 120   | 6.7     |
|               |                        |          | 70                        |                  |          | •          |      |          |             |            |       |         |



San Antonio.

More rain during the week ending November 1 prevented a full week's work in the field. The remainder of the rotation cotton was picked. Fields B-3 and C-3 were disked. Plowing of the pasture on D-4 was nearly finished. The wet weather has enabled the Johnson grass to get another good start in this field. The counting of root-rot in the rotation cotton was finished and one plat was charted. Fields B-3, C-3 and A-3 were harrowed. Labor was employed during the remainder of the week in hauling and cutting wood, ginning cotton, killing mice and repairing and cleaning up about the buildings.

Maximum temperature was 87, minimum 54, and greatest daily range 26. Rainfall amounted to 1.36 inches, making a total for October of 10.06 inches.

#### Demonstrations on Reclamation Projects.

#### Field Notes.

Belle Fourche.

During the week ending October 25, seven office conferences were held and no farm visits made. Continual snow, with the thermometer reaching 10 degrees below zero, made roads on the project generally quite impassable.

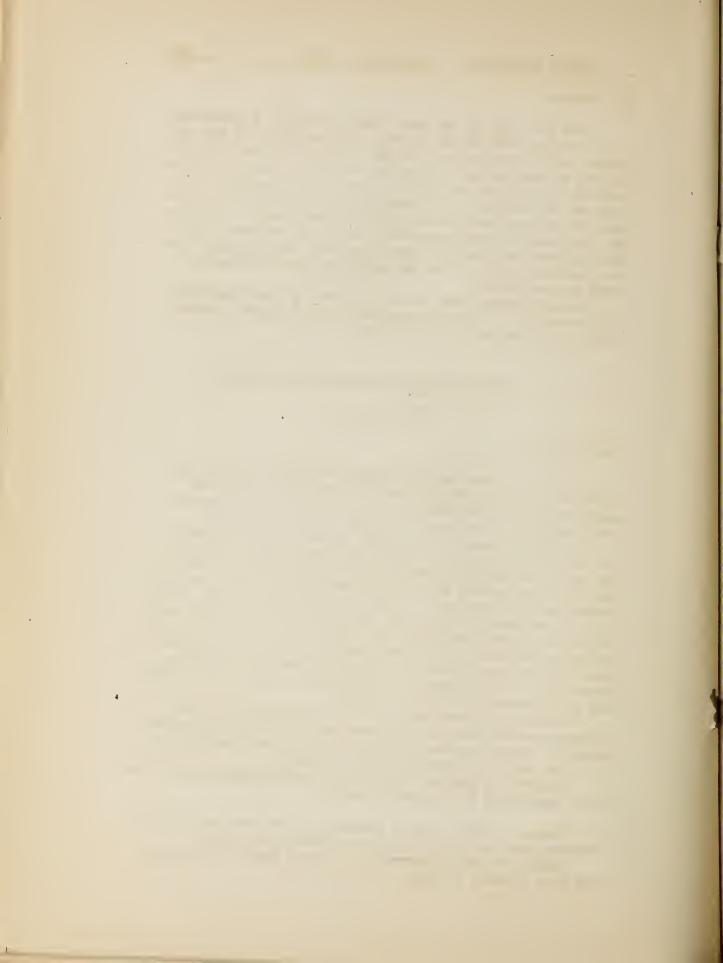
Much live stock on the trail on the way in to market was lost and the loss of weight was very marked. Some of the stock was without feed for three days. When weather conditions moderated a little so stock could move, the car situation tied them up. At one time during the week, thirty cars had been accepted for delivery. The livestock were in the yards awaiting shipment. Only three cars were loaded during the day, as the railroad failed to deliver the other twenty-seven cars. During this week sixty cars accepted for delivery were not delivered. Most of these cars had been ordered six weeks earlier.

Hundreds of acres of sugar beets were still in the ground when the heavy freeze came, and only a few have been removed. Should weather conditions not change materially much loss will be suffered by beet growers.

A number of project farmers are feeding lambs, which are being bought for feeding at 11 cents.

During the week ending November 1, fourteen office conferences were held and three farm visits were made.

Roads are still impassable, as more snow and rain has left them without bottom.



Belle Fourche (Continued).

The sale of registered Rambouillet bucks scheduled for Tuesday of this week did not take place, as the severe weather of the previous week prevented getting the bucks in. They will be sold privately.

The registered Duroc-Jersey sale at the Experiment Farm brought out a few interested buyers. The boys and girls of the pig club were unable to attend. Twelve gilts and a boar sold at practically pork prices.

Coyotes destroyed eleven lambs on one project farm one night during the week. The failure of Congress to appropriate sufficient funds for the Biological Survey is preventing the employment of hunters in this vicinity this year.

During the week the J. M. Eaton dairy herd was disposed of. This herd furnished milk to the city of Belle Fourche. Also the M. J. Smiley Holstein herd is being closed out. Twenty head of the best will be placed in a sale of state produced Holsteins to be held at Huron, December 5. Mr. Smiley states that his reasons for selling are that help to operate efficiently is practically unobtainable. Also, about thirty percent of this herd reacted to tuberculosis under Government test for state accredited herds. In addition to the above, the Simmons herds of Holsteins was closed out and shipped to Rapid City several months ago. This leaves this district short of good dairy cattle.

Huntley,

During the week ending November 1, five farm visits were made. There were seven requests for assistance, and nine conferences were held.

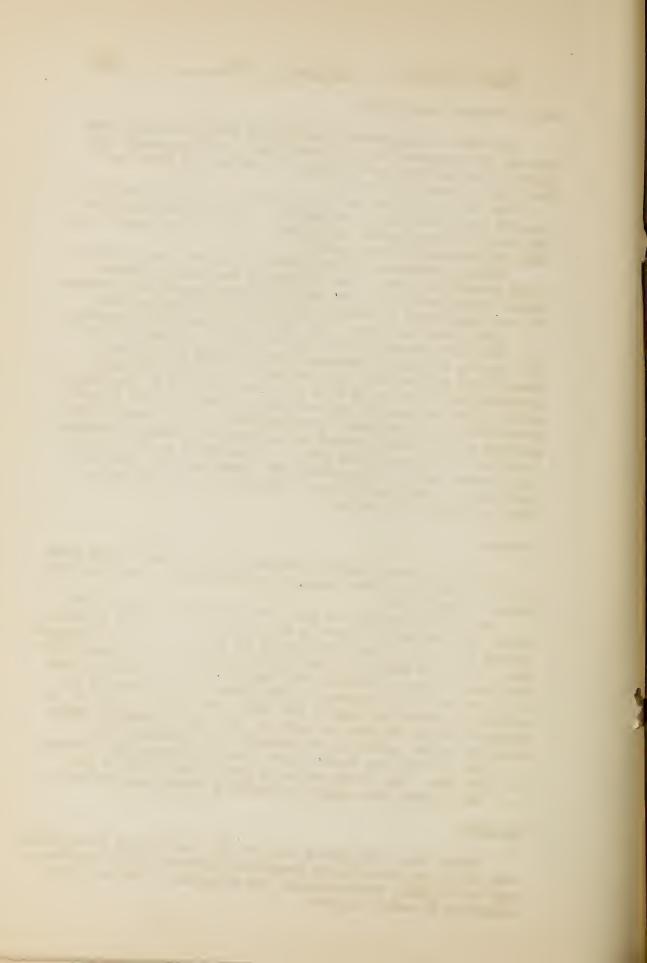
Inirty-two samples of milk were tested for butter fat. Also, the preliminary details relating to the matter of determining the cost of milk production on the project were completed. About ten owners of dairy herds will weigh and test milk and keep records. Several will weigh all feed given to their cows, at least for a time, in order that a basis may be secured from which to compute the feed cost for all. It is intended that all records be sent to this office monthly, where they are to be condensed and prepared for publication.

Two outside hay buyers were given assistance in locating hay for sale. The usual price at this time is \$25. a ton.

Two farmers were aided in locating fresh cows for sale.

#### Minidoka.

During the week ending October 25, twenty-four farm visits were made, two farm bureau committee meetings, with an attendance of sixteen, were attended and addressed. Office calls numbering 97 were received.



Minidoka (Continued).

A shorthorn sale was attended during the week, as well as a pure-bred Hampshire sheep sale.

One day was devoted with Mr. H. R. Lochry, visiting the Acequia Cheese factory and holding community discussions with the people there. Mr. Lochry went over in detail the problems of their factory with the cheese maker.

The shorthorn sale, made up of stock consigned by breeders from Iowa, was attended at Burley. The high animal, a pure Scotch heifer, brought \$2175.00.

Frank Sullivan's Sons sold several head of pure-bred shorthorns this week for fancy prices, demonstrating again that it pays to raise the good kind. They sold fifteen head of cows and a bull to George A. Mansfield, of Medford. The bull, which received Champion at the Minicassia fair, brought \$600.

Perhaps the best pure-bred Hampshire flock on the project was dispersed last week by public sale. Mr. Rosenberger's herd averaged \$35. apiece for 230 head, the high ram bringing \$410. The latter will remain on the project. Quite a number of sheep from this herd left the project. but four or five different farmers purchased lots up to 20 which will remain in the community.

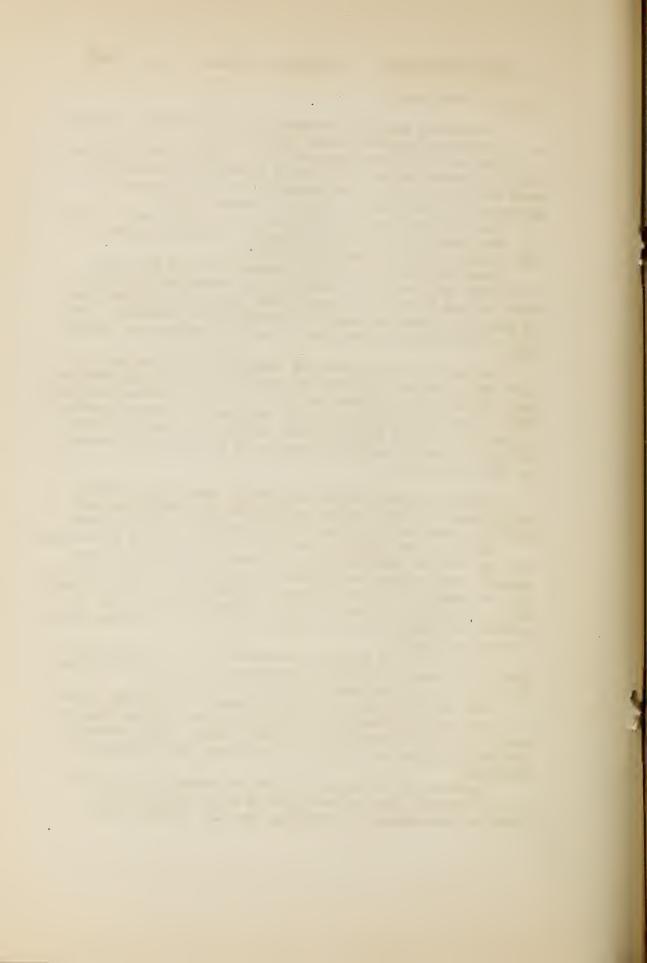
During the week ending November 1, forty-eight office calls were received, twelve farm visits were made, and two meetings, with an attendance of forty-three, were attended.

The week was largely given over to help in the re-organization of the two farm bureaus. One meeting at View was attended, with a total attendance of thirty-four. These people are much interested in better agriculture and particularly better dairying. A rising vote of thanks was given for the assistance rendered by the county agent and the agriculturist in the past year.

The project is attaining somewhat of a reputation for good live stock. An outside buyer was on the project during the week buying shorthorn bulls for use in Oregon.

One day was spent with Rich Brothers, at Jackson, looking over their pure-bred shorthorn herd and helping them arrange their farm buildings for their stock. They recently purchased 69 head of pure-bred shorthorns from Wyoming, for \$14,200.

"Interest is returning to a marked degree in the live stock industry, due to the lowering of the price of hay, which is now selling at from \$15. to \$18. in the stack.



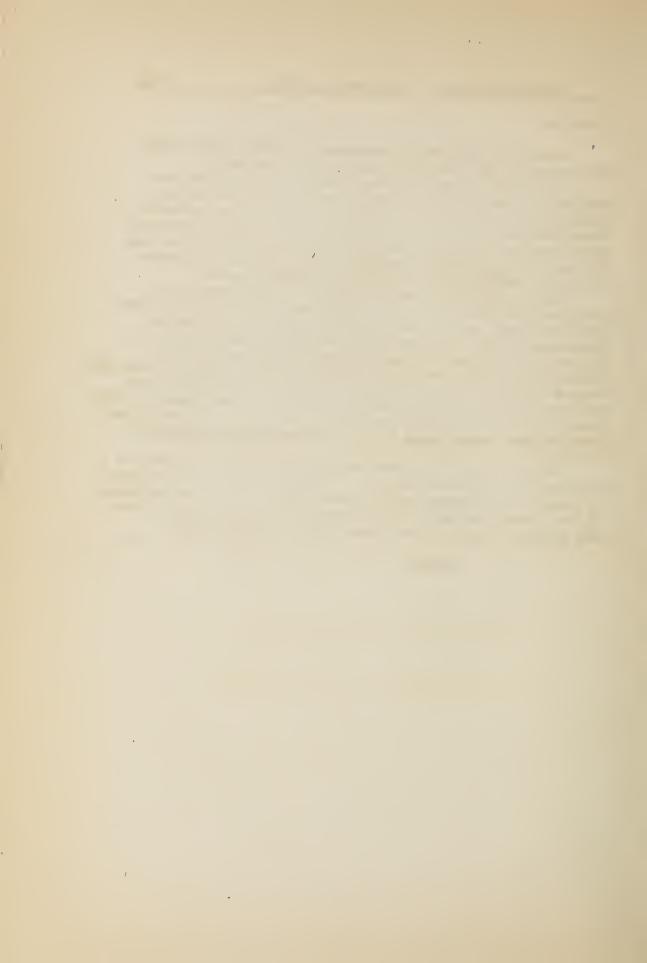
Shoshone.

During the week ending November 1, three office calls were received and two other conferences were held.

The herder of the Shoshone Livestock Association has returned to the Forest Reserve to get what he can of the cattle left behind in the roundup. Storms in the mountains have been bad this week, so he will likely have a great deal of difficulty. Some means must be found of getting the cattle out of the mountains earlier in the fall or the farmers will quit sending the cattle to the Forest Reserve.

The hog buyer who bought a load of stock hogs at 13 cents received an offer of 13 cents for another carload from the same party, and he has the hogs bought but can get no promise of a car. Another buyer, who bought three loads at 12 cents, is facing the same situation. Hecause of this trouble of getting cars, the agriculturist is afraid to deal with buyers other than those who come in person for hogs and make personal contracts with individual farmers. Where there is such delay in obtaining cars a decided rise or fall in prices after hogs are sold might cause trouble unless definite contracts were made.

The last day of the week was spent auditing the books of the Powell Cooperative Creamery. A final effort is being made to enable the creamery to pay going prices without losing money. If this cannot be done soon, recommendation will be made that the creamery be closed or turned into a cream station.



# WEEKLY BULLETIN

OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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#### WEEKLY BULLETIN

Of the Offices of

# WESTERN IRRIGATION AGRICULTURE and DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

November 15, 1919

No. 20

Western Irrigation Agriculture.

San Antonio.

During the week ending November 8, the maximum temperature was 83, minimum 54, and the greatest daily range 28. The precipitation was 0.10 inch. Nearly a full week of field work was possible, though only a small amount of rain was necessary to make it difficult to do good work.

Most of the Johnson grass in the fields was cut. The rest of the pasture was plowed and all seeded to oats. All rotation plats that have been plowed were harrowed. Fields A-3, C-3, and part of D-3 were harrowed. Orchards A-1 and B-3 were cultivated. Oats were seeded on B-3 and C-3. The cotton on the Herbst field was picked. Cotton stalks were mowed on part of the rotation plats. The mile on A-6 to 14, and the Sudan grass on A-4-14 and A-6-18 were mowed. The charting of root-rot on the rotation plats and C-5 was finished. Hay from the steer passure and from the Rhodes grass plats on A-3, B-3, and B-4 was hauled in. Other tasks performed included weeding about the lots, repairing machinery and harness, and counting cotton stands on C-5.

# Demonstrations on Reclamation Projects.

Belle Fourche.

During the week ending November 8, four conferences were held in the office. No farm visits were made. Travel on the project was impracticable on account of the severe weather conditions and bad roads.

Mr. A. C. Cooley spend Friday, Saturday and Sunday with Mr. Aicher, visiting Newell and the Belle Fourche Experiment Farm. A trip over the project had to be postponed on account of a terrific blizzard that started early Saturday morning. The trip to Newell and return had to be made via railway.



Shipping conditions have not improved any. Thousands of cattle and sheep are in this vicinity awaiting shipment. They were brought in by stockmen who expected to have cars, which in many cases had been ordered from six weeks to two months in advance. They are being fed \$20 and \$25 alfalfa and wild hay.

Winter feeding on the adjoining ranges began six weeks earlier than usual and a large number of stockmen will run out before the season is half over, especially so this year on account of the drouth conditions during the past season which prevented growth of hay and hence the making of much hay on the range. Early feeding will deplete the already short supply. This fact is worrying the live stock men. The project farmers are taking all the livestock to winter that they can handle. Many rangemen, or so-called dryfarmers, have purchased irrigated farms this year and are going to be prepared for future seasons of this kind.

Huntley.

During the week ending November 8, nine farm visits were made, and 22 requests for assistance were received, four of which pertained to animal diseases. Twelve conferences were attended, of which eight related to live stock.

Sixteen milk samples and one of cream were tested. The number, names and descriptions of some of the cows to be included in the cost-of-production project were secured and several dairymen were assisted in beginning to keep records. One farmer was assisted in securing a fresh cow, and time was given to aiding others without results.

The County Agent was assisted in giving publicity to a series of Farm Bureau meetings to be held in the five communities on the Euntley Project from November 11 to 15, inclusive.

Minidokaidoka.

During the week ending November 8, 36 office calls were received and 11 farm visits were made.

Most of the week was devoted to dairy development work; conferring with the Rupert Cheese Factory directors, and taking some of the patrons of the factory over to Cassia County to see stock that was purchased and brought from Wyoming.

One milk route was partially planned from a distant territory on the project.

North Platte.

During the week ending October 25, thirteen farms were visited for general live stock work, eight visits being at the request of the owners. Practically the entire week was spent in connection

#### North Platte (continued)

with the dairy industry. As reported last week, some work is being done toward improving marketing facilities for butterfat, and this week another conference was held between the executive board of the Dairy Association and the Creamery Company at Scottsbluff. This cooperation promises to give the farmers a much better and a much steadier market for their butterfat than they have ever had.

One herd of calves which were found to have blackleg was vaccinated this week. Some assistance was given in making plans for a large dairy barn which is to be erected in the valley this winter.

On Saturday night, Mr. Unruh accompanied two of the farmers on the project to Omaha for the purpose of purchasing stock cattle to be kept on their farms during the winter for consuming roughage.

During the week ending November 1, the first four days were spent at the Omaha live stock market. The trip was made in company of two of the project farmers. One hundred head of coming two-year-old white-face steers were purchased at a cost of \$9.50 per cwt. These cattle will run to straw stacks and be fed corn fodder and alfalfa hay.

During the latter part of the week three herds of calves were vaccinated with the Kansas Germ-Free vaccine against blackleg; there were 380 head in the three herds. One small herd of hogs was vaccinated against cholera. Cholera was discovered in a large herd of hogs late Saturday afternoon. Only a small part of this herd, which is composed of registered hogs, was vaccinated at this time owing to a shortage of vaccine, but vaccine was ordered by wire for the remainder.

#### Yakima.

During the week ending October 25, six office calls were received and twelve farm visits were made.

Most of the week was devoted to visiting dairymen on the upper part of the Tieton Project. Several dairymen in this locality are considering purchasing dairy stock. In all probability the required number can be secured in the Valley without going to other sections of the State.

Part of one day was spent with Mr. T. Care in visiting dairy herds that are for sale. Mr. Care did not come to a definite conclusion at this time. Several other dairymen are in favor of organizing a cow testing association in case the required number of cows can be secured.

The first heavy freeze visited the Valley this week. The general opition seems to be that all fruit and vegetables not in

Yakima (continued)

storage are practically ruined.

During the week ending November 1, four office calls were received, two calls for assistance received and four farm visits were made.

The greater portion of the week was spent in visiting dairymen on the Sunnyside Project with a view to securing cooperation with farmers for pasture management demonstrations and in gathering information relative to official testing of the pure-bred Folstein herds.

The heavy freeze of the latter part of last week has frozen all fruit and vegetables left outside the storage houses. It is estimated that over four hundred cars of late apples are damaged to the extent that it is doubtful whether they can be used by the by-product companies. There are also many carloads of potatoes damaged, as well as other vegetables. The total loss to the producers of the Yakima Valley will be great.



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#### WEEKLY BULLETIN

Of the Offices of

#### WESTERN IRRIGATION AGRICULTURE

and DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

November 22, 1919.

No. 21

## Demonstrations on Reclamation Projects.

Field Notes.

Belle Fourche.

During the week ending November 15, eleven office conferences were held. No farms were visited during the week owing to severe weather conditions and the consequent conditions of the roads.

Dr. A. M. Taylor, of the Bureau of Animal Industry, is on the project testing cattle for tuberculosis in the state accredited herd work. The final test for the Smiley herd preparatory to dispersal is being made at this writing. Twenty head of these cattle will be placed in the South Dakota sale of Folsteins to be held at Euron December 6, 7 and 8. The reactors have been purchased by a party in Madison, South Dakota, and will be used for breeding purposes and be kept as a seggregated herd. This gentleman expects to obtain a herd of high producing offspring from these reactors, as Mr. Smiley's herd boasts more high producers for its size than any other herd in the country. The experiment will be an interesting one.

During the week one article was prepared for the Dakota Farmer on live stock conditions on the project and this district generally.

Mr. Arthur Ellison, now employed in the office of Cereal Investigations, Buteau of Plant Industry, will become County Agricultural Agent for this (Butte) County on December 1.

Two cars of hogs were sold here the latter part of the week at 14 cents f.o.b. Newell. One car was sold Saturday of last week at Omaha top, or \$15.35. These were feeders. In addition, two cars of project hogs consigned from Vale, South Dakota topped the Omaha fat market Thursday of this week. Light fat top was \$15.35 and the heavy fat top \$15.20.



Huntley.

During the week ending November 15, there were 16 conferences held, and 23 requests for assistance were received and 14 farm visits made.

Mr. Brossard, County Agent; Miss Willis, Home Demonstration Agent, and Mr. Fuhrmeister, President of Yellowstone County Farm Bureau, were on the project the greater part of the week. Meetings were held and farm bureaus organized in three communities; i.e, Ballantine, Anita, and Pompey's Pillar. A blizzard prevented a meeting at Osborn. Mr. Gilbertson, director of agricultural work in the Northwest, and Mr. Lott, Assistant State Leader, assisted the local leaders.

Six milk sample cases were distributed to farms and instruc-

tions given regarding the taking of samples properly.

An advertised sale of 43 cattle, consisting of both dairy and beef type, belonging to three different farmers, was attended at Ballantine on the 12th. Twenty-dollar hay and about a foot of snow made bidders few and cautious. One owner withdrew most of his animals, choosing to take a chance on waiting until Spring. Folstein heifers due to freshen in a short time sold for as low as \$42.00.

Minidoka.

During the week ending November 15, 18 farm visits were made and 50 calls at the office received.

One day was spent attending a meeting of various directors of live stock associations and seed growers' associations, where a program was tentatively outlined for a general winter meeting. This meeting will be held sometime in January. Part of one day was devoted to assistance in arranging poultry meetings on the project. A series of demonstrations will be held during the coming week, culling the various poultry flocks, which, in itself, is extremely interesting and valuable to farmers on the Minidoka project.

One case of the spoling of beet top silage was investigated. The farmer was somewhat excited, saying his silage was "going up in smoke" and wanted assistance immediately. The filage was found to be steaming considerably but otherwise was in excellent condition.

Sometimes it is difficult to measure in actual concrete results the value of different phases of extension work. However, it is felt that a silo excursion held on the project last spring shows some evidence of bringing immediate results. While there was only a small party on the excursion, it resulted in a large silo meeting being held in Rupert several weeks later, at which there was an attendance approximating 150. Eight silos were built on the project during the past year; two were built by men who actually took a part in



#### Minidoka (continued)

the excursion. One man bought a band of 400 sheep while on the excursion. Another man bought a herd of pure-bred Holsteins numbering 22, and three beet-top silos were made by members of the excursion this fall. Two other members of the excursion have expressed themselves as planning to build a silo next year.

It is noted that here, locally, when one calls a meeting for a definite purpose, it is quite easy to achieve results from the gathering. It is also difficult to call a meeting of farmers on the project for a general educational or agricultural improvement meeting.

Newlands.

During the week ending November 1, a trip was made to several points in California for the purpose of visiting herds of registered cattle with a view to selecting registered bulls for the project. Two registered Jersey herds were visited at Lackford, one registered Holstein herd at Gault, and one at Woodland, California. These herds contained some of the noted animals of their respected breeds, and no doubt some selection of bulls will be made from these herds in the near future. While on this trip, one day was spent in San Francisco attending the Pacific International Livestock Show. This show is patterned somewhat after the Chicago show and included exhibits of all classes of animals. The carload exhibits of market classes and grades of fat stock were a new feature of this show. The quality of the dairy cattle exhibit was exceptionally good, although not many herds were exhibited. The pure-bred sheep exhibit was rather small but made up of good individuals. There was a good butter and cheese exhibit. One of the features of the show was a large milk bar where all sorts of milk drinks were served. This was very extensively patronized. This feature was put on by the Associated Milk Producers of California, a cooperative institution which is being very extensively promoted at this time. One of the big features of the show was the horse show, which was held each On the whole, the exhibits were very good for the evening. first attempt of an international show in the West. The show will no doubt be continued as a permanent institution hereafter.

#### Yakima.

During the week ending November 8, fourteen farm visits were made and two calls for assistance were received and answered. This region was visited by snows, rain, wind, and cold weather during the first four days of the week. Automobile travel was quite difficult and very disagreeable. This kind of



#### Yakima (continued)

of weather was not welcomed by the farmers as it came just at the time when they were beginning to harvest their beets and were finishing the rotato harvest.

Much of the time this week was spent visiting the dairymen on the Tieton, in the vicinity of Cowiche, making an effort to get the men together who are interested in securing dairy cows. There are several dairymen in this vicinity who want from two to ten head. In all probability it will not be necessary to leave Yakima Valley in order to secure the required number, as there are a number of dairymen on the Sunnyside unit who wish to dispose of their herds, and as soon as the dairymen on the Tieton unit have their work in such shape that they can leave for a few days another effort will be made to get them together, and visit places in the lower valley where desirable stock can be bought.

The farmers on the Tieton unit who have been growing hogs are very much discouraged through the recent decline of the hog market. Those men who had their hogs finished early got them to market before prices reached the lowest mark. However, none of the farmers has so far decided to quit the hog business entirely. They realize that with the cheap feeds and rastures which they have they can not afford to do without the gog altogether.

During the week ending November 15 fifteen farm visits were made, three conferences were held and four office calls received.

The greater part of the week was spent on the Sunnyside unit in the vicinity of Sunnyside and Grandview. The dairymen who are planning to begin work keeping farm records were visited and a few other visits were made with the idea of interesting the farmers in keeping records of their farm operations. A. number of farmers announce that they will begin this work as soon as they have completed their 1919 work, as they desire to begin keeping records at the first of the new year. They have been furnished with record books and blanks for this purpose. All of this work is to be carried on in cooperation with the WashingtonaState Agricultural College under the direction of Prof. Severance.

There is a noticeable growing interest on the part of a considerable number of farmers on the Sunnyside unit toward the production of baby beef. This interest is the result of a large quantity of beet pulp being available and the farmers are beginning to realize the value of silage and alfalfa in the ration for growing beef. Some of these farmers have already secured the cattle and have begun feeding. Others have bought on the Spo-



## Yakima (continued)

kane market and are waiting for the cattle to be shipped. Mr. Elliott recently shipped in 135 head of first class calves from the Idaho range. While these calves had only been on feed a short time they gave promise of giving some very favorable results. If this year's beef feeding proves profitable it will no doubt have the effect of causing a number of other farmers to go into the business and those that are now feeding to enlarge their operations. These beef feeding operations are being very carefully watched by many farmers on the Sunnyside unit.

The beet factories at Toppenish and Sunnyside began operation this week. The beets began to come into the factories last week and in the early part of this week there were enough beets on hand to warrant the operation of the factories.

Owing to the difficulties experienced by the beet growers during the past season with blight, and the prices they are receiving for potatoes, the beet growers are inclined to be discouraged over the outlook for the coming season. There seems to be quite a widespread feeling among the farmers to reduce their acreage for the coming year. No doubt the labor situation has had considerable influence on this situation.

Since the potato harvest is about completed, it is found that, though the normal acreage was planted and the vines looked fine during the growing season, instead of the estimated average of nine tons to the acre, the crop is not averaging over six tons. The shortage in yield was somewhat of a surprise to the growers as well as to the buyers. This week those were a great many carloads of potatoes put on the market at \$45.00 per ton. It is estimated that about a thousand cars have been shipped out this week and that there is not more than 2,500 cars left in the valley. This is approximately 3,500 cars, as compared with the normal crop of 4,500 to 5,000 cars.





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BUREAU OF PLANT INDUSTRY

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Of the Offices of

#### WESTERN IRRIGATION AGRICULTURE

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#### DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

November 29, 1919.

No. 22

## Western Irrigation Agriculture.

### Field Notes.

San Antonio.

During the week ending November 22, the maximum temperature was 78, minimum 40, and greatest daily range 34. Precipitation was .05 inch.

Oats and field peas were seeded on rotations. Plowing of cotton plats was continued. Shocking of third crop sorghum on rotation plats was finished. Part of this crop was hauled in, but it appeared to be too green to keep well in the stack, so hauling was discontinued. The remainder of the second crop was hauled. Burning of cotton stalks on rotations was continued. Soil samples were taken according to schedule. Manure was applied to plats B-6, 7 and 9, where field peas were seeded. Field D-3 was disked and harrowed. A picking of cotton on Herbst field was made.

## Demonstrations on Reclamation Projects.

## Field Notes.

Belle Fourche.

During the week ending November 17, fourteen office calls were received and one farm visit made.

One feeder-hog buyer was assisted in the purchase of three car loads of good feeders. Price ranged from  $13\phi$  to  $13-1/2\phi$ .

Assistance was rendered a Holstein breeder in the prepara-

tion of sale catalogs for a dispersion sale.

One farmer requested information regarding the establishing of a pure bred beef herd. His scrub cattle have been advertised for sale during the next week. He will be in the market immediately for registered cattle. Assistance will be rendered him in their selection.



## Belle Fourche (Continued).

Plans are on foot to have a Black Hills delegation to the National Western Live Stock Show at Denver. The Farm Bureaus and the Black Hills Breeders Association are promoting the plans for the trip.

Huntley.

During the week ending Movember 22, there were twelve conferences; eleven requests for assistance were received and four farm visits were made.

Warm weather and melting snow made the roads impassable all week, thus preventing field work. On Saturday a meeting of the Yellowstone County Farm Bureau, at Billings, was attended. Bad roads caused a very small attendance, but an extensive program of work for the county was drawn up and several speakers of note were heard.

### North Platte.

During the forepart of the week ending November 8, a herd of eighty-five head of pure-bred Duroc-Jersey hogs were vaccinated against cholera. Three other herds of hogs were visited during the week for sickness but none of these had cholera.

In all, twelve farms were visited during the week, eight of these calls being made for general dainy work. Assistance was given in planning another dairy barn for this project which will be erected during the winter. Blue prints from this office will be used. A conference was held with the president and secretary of the local dairy association this week in regard to the affairs of the association.

Saturday was spent in moving the office furniture and fixtures to the new office room in Scottsbluff.

During the week ending November 15, the time was spent in moving to Scottsbluff and in getting settled in the new headquarters there. There were two blizzards the forepart of the week, which made the roads almost impassable.

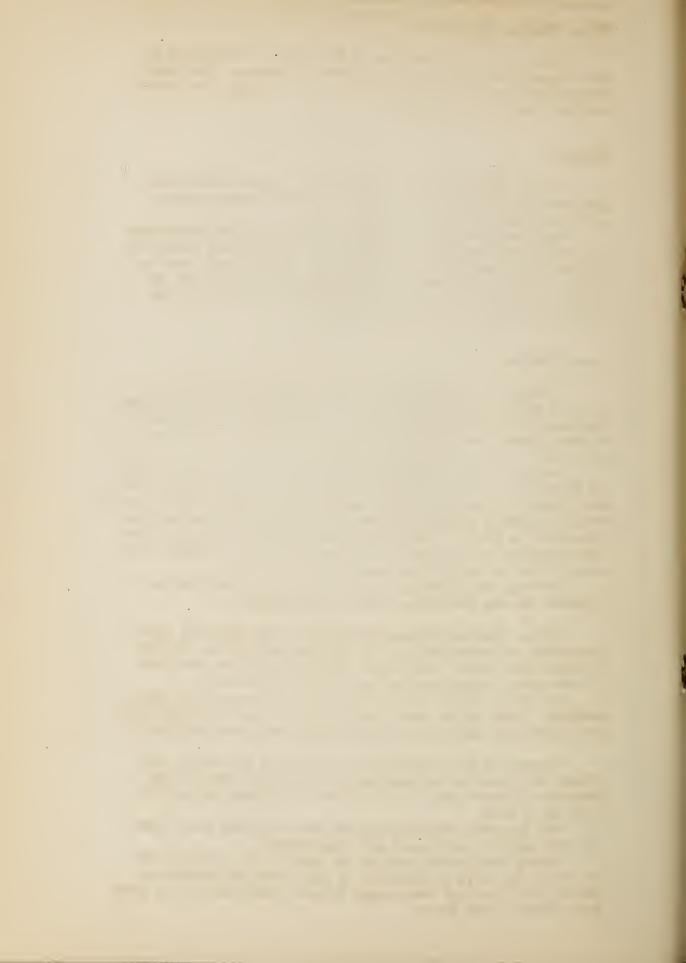
Mr. A. C. Cooley spent Wednesday and Thursday on this project. Some of the work done during the past year was gone over with him, and plans for the coming year were outlined.

Because of the impassable roads due to the heavy snow storms the week before practically the entire week ending November 22 was spent in the office in bringing the office work up to date.

One farm was visited for sick hogs and they were found

to have cholera; nine head were vaccinated.

During the latter part of the week a trip was made in the vicinity north of Mitchell to see a herd of cattle reported sick and they were found to have been over-fed on beet tops after a long drive.



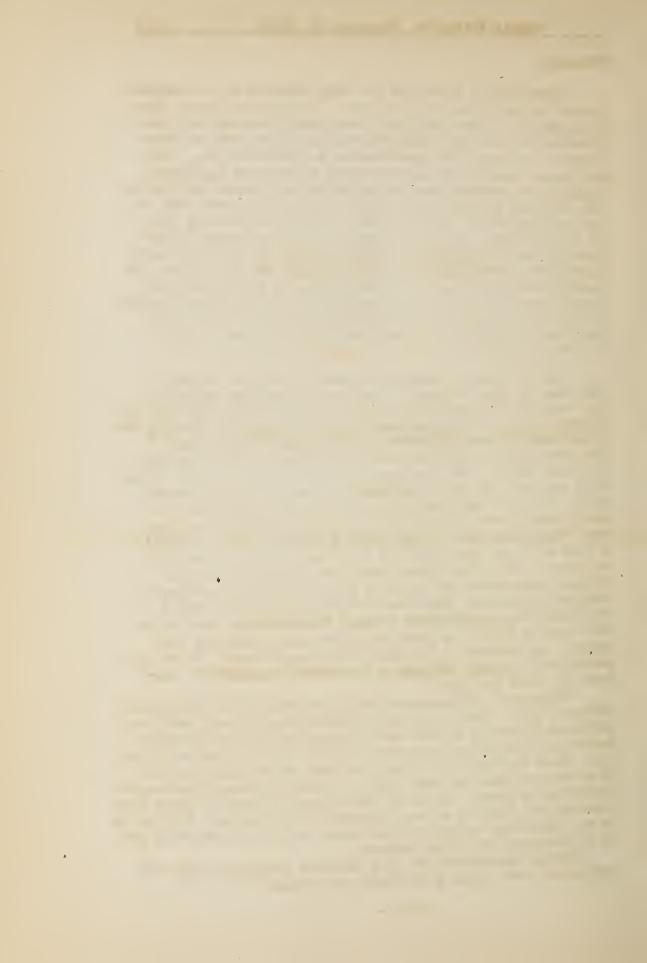
Newlands.

Some loss of livestock has been reported on the project caused by poisoning with milkweed. Since these losses have been reported there has been considerable concern over the presence of this poisonous milkweed and some time has been spent in studying its distribution in this locality. This particular plant, the narrow-leafed milkweed or asclepios mexicana, is reported native to California, Oregon and Nevada. Its presence on the project has been known for some time but has not caused any concern, most ranchers not knowing that it is poisonous. Up to the present time its growth in this locality has been confined to ditch banks and is distributed throughout the valley. It is the purpose of this office, in cooperation with the local Farm Eureau, to put on an educational campaign for the eradication of this plant next spring. there is no doubt but that much loss of stock locally that has been attributed to other causes has been due to this poisonous plant.

During the past week a cooperative shipment of hogs was sent to Reno, Nevada. The market quotations received for this load of hogs was as follows: 1524 and 184 by two different firms in San Francisco for prime hogs;  $14\frac{1}{2}\phi$  and  $15\phi$  for prime hogs by two different farms in Reno, Nevada. There were considerable differences in requirements for prime hogs by these firms. One San Francisco firm would accept as prime hogs any well finished hogs weighing from 100 to 225 pounds, while the other San Francisco firm required prime hogs to weigh from 150 to 225 pounds. It will be readily seen from such quotations that it would be to big advantage to market a load of light hogs with the firm admitting the light hogs as prime. Since this particular load averaged about 200 pounds, one market was about as good as another, considering shipping expenses. Just before this load was sent out, a representative of the Reno Packing firm purchased the entire lot locally for 13¢ a pound for prime hogs, which was considered equivalent to the coast market quotations. It is expected that another carload of hogs will be ready for shipment in about ten days.

Assistance was rendered in the selection of a registered Holstein bull. This bull was selected from the only herd registered Holsteins in this valley where registered Holsteins are being bred on any extensive scale. This is also the first high class Holstein bull from this herd to be placed at head of a Holstein herd in this valley. Local Holstein breeders are fortunate in having access to Holstein bulls locally grown that have as good backing as the Holstein breed affords. Heretofcre, be an absolute necessity hereafter.

During the week there were received forty-one calls for assistance and eleven farm visits were made.



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BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

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Of the Offices of

#### WESTERN IRRIGATION AGRICULTURE

And

DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI.

December 13, 1919.

No. 23

## Western Irrigation Agriculture.

### Field Notes.

San Antonio.

During the week ending November 29, the maximum temperature was 80, minimum 36, and greatest daily range 33. Precipitation amounted to .34 inch. November has been a rather dry month, the total rainfall being only. 51 inch. Only two frosts occurred, neither of which injured more than the tenderest plants. The weather for November has been favorable for saving the late for age crops. The late crop of forage sorghum was generally very good, and in driving through the country it was noticed the most of it has gone into the shock in good condition.

Plowing of rotation cotton plats was continued. Field peas were seeded on D3. This seeding included a variety test and a rate-of-seeding test. Other jobs included fence building around steer pastures, raking and burning cotton stalks, hauling coal, and repairing coal bin, weeding C3, plowing garden, repairing water pipes, grinding feed, hauling and cutting wood, and collecting articles to be sold at auction.

## Demonstrations on Reclamation Projects.

Huntley.

## Field Notes.

During the week ending November 29, twelve farm visits were made and sixteen conferences were attended. Field work was interfered with by several snow storms. Already more snow has fallen than fell during the whole winter last year.

Milk samples from seven herds were tested and owners asked to send the records of feed consumed and milk produced to the office as soon as possible.

Advice was given regarding sanitation and diseases in seven instances.

Hay buyers offered \$20. to \$22 per ton during the week, but secured little hay. The greater part of the surplus has been sold now, but some owners are holding for a still higher price.



Huntley (Continued).

Until recently hog producers have been unable to secure corn for less than \$3.25 per cwt. As the alfalfa pastures have been covered with snow since the middle of October, profitable feeding has appeared impossible. The situation is being improved lately by cooperation in the purchase of feeds. One carload of corn has been secured at a cost of \$2.75 per cwt.

North Platte.

During the week ending November 29, seven farms were visited for general live stock work. All of the work for the week was with swine or dairy cattle. Three herds of hogs were treated for various ailments and one small bunch of six head was found to have cholera, and were vaccinated.

An official cow tester for milk production was in the valley this week running tests on some of the cows in the pure bred Holstein herds of Barton and Sons, and L. R. Wright. A two-year old heifer in the former herd made a seven-day record of 23 pounds of butter fat.

The weather throughout the week has been stormy, with about six inches of snow on Wadnesday.

Yakima.

The greater part of the week ending November 22, was spent at Portland, Oregon, attending the Pacific International Live Stock Show, and at Seattle and vicinity, where a number of dairies and live stock farms were visited. One day was spent at the

Western Washington Experiment Station, at Payallup.

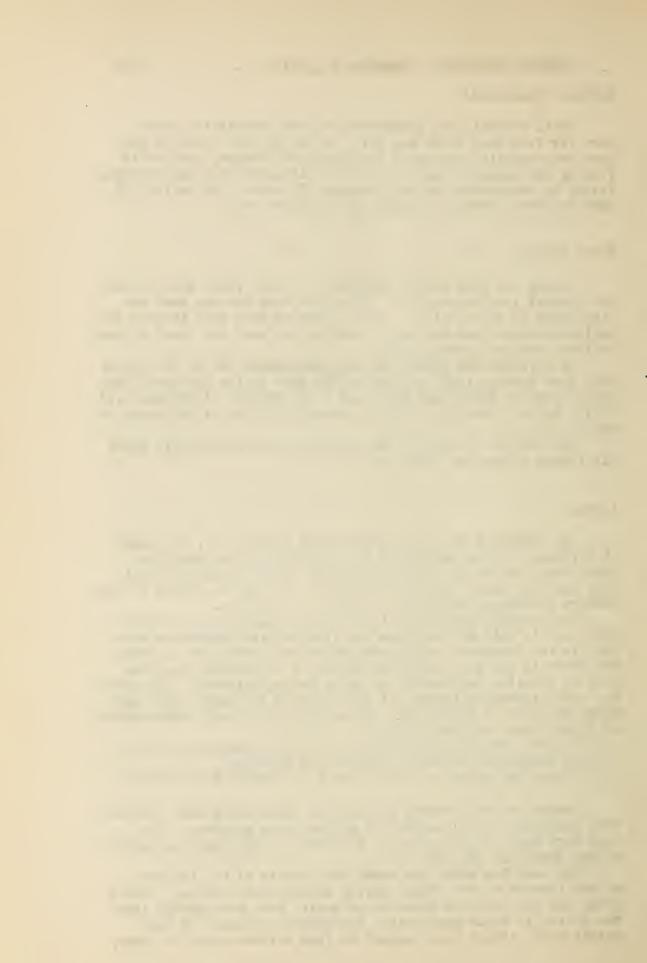
The Pacific International Live Stock show held at Portland this year is said to have been the largest live stock show ever held in the Northwest, and according to those who have attended the shows in the past years, the greatest improvement has been made in quantity and quality of dairy stock exhibited. This year the most attractive feature of the show was the dairy stock and dairy products on exhibition. Yakima Valley was well represented in dairy, beef, and hog exhibits.

Thursday was spent with Superintendent Linklater, of the Western Washington Experiment Station at Phyallup.

Friday the Carnacion dairy farm near Seattle was visited.

During the week ending November 29, nine farms were visited, five conferences held and twelve office calls received. Two days were spent at the office. Remainder of the time was spent on the Sunnyside Project.

The past few weeks has shown the results of the interest of the farmers of the Yakima Valley toward beef feeding. Almost every day for the past three weeks cattle have been coming into the valley in train load lots. Six hundred carloads of beef cattle have already been shipped in from various parts of Idaho,



Yakima (Continued).

Montana and Eastern Washington, are being fed on the Indian Reservation in the Sunnyside district.

The local sugar beet factories have been shipping in cattle for the past few years for feeding purposes and this, coupled with the yields of hay and corn in the past season, no doubt greatly stimulated this interest manifested in feeding beef cattle this winter. The feeding of baby beef seems to be gaining in popularity, and if this season's operations are successful no doubt this will prove to be a very large part of the feeding operations in the next few years. However, this form of cattle feeding will necessarily have to be tried out in this locality as it has not been generally practiced during the previous years.

Mr. Frank M. Faton, of the Bureau of Plant Industry, doing investigational work in Southern California relative to the duty of water, called at this office for information, and also made a trip to Sunnyside, where he continued his work of securing information by visiting a number of localities on the Sunnyside Project. The Reclamation Service is very much in favor of Mr. Eaton's taking up the investigational work on the duty of water as applied to the Tieton and Sunnyside Projects.

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OF THE OFFICES OF

# WESTERN IRRIGATION AGRICULTURE

AND

# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

1919

## PERSONNEL

# WESTERN IRSIGATION AGRICULTURE

| C. S. Scofield, Agriculturist in Charge,  |
|---|
| BELLE FOURCHE EXPERIMENT FARM, Newell, South Dakota  Beyer Aune, Superintendent Geo. T. Ratliffe, Assistant  HUNTLEY EXPERIMENT FARM, Huntley, Montana Dan Hansen, Superintendent SAN ANTONIO EXPERIMENT FARM, San Antonio, Texas A. A. Bryan, Acting Superintendent NEWLANDS EXPERIMENT FARM, Fallon, Nevada F. B. Headley, Superintendent Morrel A. Powell, Assistant SCOTTSELUFF FXPERIMENT FARM, Mitchell, Nebraska James A. Holden, Superintendent David W. Jones, Jr., Assistant  UMATILLA EXPERIMENT FARM, Hermiston, Oregon H. K. Dean, Superintendent YUMA EXPERIMENT FARM, Superintendent |
| Edward G. Noble, Superintendent   |
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| George A. Wright,   |
| NEWLANDS RECLAMATION PROJECT,   |
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| F. R. Ellis, Clerk, Washington, D. C.   |

Of the Offices of

#### WESTERN IRRIGATION AGRICULTURE

And

DEMONSTRATIONS ON RECLAMATION PROJECTS.

Vol. XVI. December 20, 1919. No. 24

## Western Irrigation Agriculture.

### Field Notes.

San Antonio.

During the week ending December 6, the maximum temperature was 68, minimum 32, and greatest daily range 34. Precipitation amounted to .58 inch and came in light showers extending over most of the week and preventing field work.

Monday, plowing of sorghum and Sudan grass plats was begun. Weeds on the nursery and the remainder of the rotation cotton stalks were mowed. Plat B6-17 was disked, harrowed and seeded to rye. This land was too wet for good work, but seeding was done in spite of this, because the season is getting so far advanced.

During the remainder of the week labor was employed in cleaning seed house, repairing machinery and harness, weighing and removing steers to oat pasture, cutting wood, building fence, repairing water system and cleaning cotton seed.

## <u>Demonstrations</u> on Reclamation Projects.

## Field Notes.

Belle Fourche.

During the week ending November 29, nine office calls were received and no farm visits made. Weather conditions still prevent travel over the project, the lowest temperature being 12 degrees below zero.

One visit was made to the Reclamation office, at Newell, to discuss with the Project Manager the circulation of a livestock questionnaire among project farmers for the purpose of determining the approximate livestock status of this project.



Belle Fourche (Continued).

Two thousand blank forms were turned over to the Commissioners of the Water Users Association for this survey. The questionnaire asks a series of questions regarding each class of livestock. There are seven questions on horses, nine on beef cattle, ten on dairy cattle, eight on hogs and eleven on sheep. When this survey is completed, quite definite information should be available regarding local livestock conditions.

Facts relative to the losses suffered by project and range sheep men are coming in. Two project sheep and range men with combined herds have been on the road for more than ten days, and have been losing from twenty to thirty head daily. These sheep have encountered three blizzards and have not yet reached destination. Another sheepman left a point forty miles north, with 2100 head, and reached Belle Fourche with less than 700.

Project hog growers are much discouraged with the hog market and hog industry. When prices were good and their hogs were ready to be shipped, they could not obtain cars. The marketing of hogs comes about the time the heavy shipments of cattle begin. With the car shortage and concentration of stock which must be moved, regardless of market price, it works a severe hardship on the hog grower. If cars are ordered for any period in advance, the fluctuations of the market may cause the hog grower a heavy loss to ship when he does not get the care. From present indications, there are but two solutions of this problem: The most feasible plan would be to get the hogs ready for shipment a few weeks earlier and avoid the heavy marketing season for cattle. One objection to this, however, is the fact that the corn belt farmers are not always ready for feeders at the time these hogs would have to go. The other solution would be to concentrate on another class of livestock, preferrably sheep, as the marketing season does not seriously conflict with the cattle marketing period.

One farmer has disposed of his entire hog holdings, with the exception of one sow, topping the Omaha market with his shipment. He received \$15.35, but said, even then he lost money. He has gone into the sheep industry heavier than before and thinks he will be safer because the sheep market is more stable.

During the week ending December 6, nine office conferences were held, three farm visits made and three street conferences held.

The temperature remains around the foro mark. Tuesday night 28 degrees below zero was recorded. Certainly this is an off season. Old residents state this section has already had more severe weather than is ordinarily experienced during the entire winter season.



Belle Fourche (Continued).

One trip was made to Lawrence County for the purpose of inspecting Hereford heifers and a bull for prospective project purchaser.

The Butte County Agent began his duties during the week. Conferences were held with him relative to methods of coopera-

tion.

A "better sires" campaign will be launched in the near future, in cooperation with the County Agent and specialists of the State Extension Service.

A polled Hereford herd of twenty head were brought to the project during the week; also a flock of twenty head of pure bred Shropshire sheep.

Huntley.

During the week ending December 6, fifteen requests for assistance were received from all sources, four farm visits made and sixteen office conferences held.

Part of the week was spent in securing information relative to the Worden Creamery and the Ballantine Cheese Factory, which might be useful in deciding what course to pursue toward the latter. Owing to reduced patronage, due to several causes, the directors questioned the advisability of keeping the factory in operation during the winter months. They have finally decided to do so, but milk will be received only every other day. The salary of the cheese maker has been cut down and the cost of operation reduced in other ways. By these means it is hoped that the business will pay expenses until spring. Then, if receipts increase, measures can be taken to handle them.

One day was spent in Billings assisting a farmer in the selection of some cattle, and in conference with the County Agent, respecting several matters pertaining to livestock.

Minidoka.

During the week ending November 22, twenty-eight farm visits were made and forty-eight office calls received. One meeting of the farm bureau committee was held, with an attendance of eleven.

Considerable time was given over to the development of the cheese factory at Rupert, and also to the purchase of dairy cattle. Taking all things into consideration, it was felt at this time that it was inadvisable to procure cattle in large quantities in the usual way of extension workers. The plan of going out and securing dairy cattle is feasible, but can be better accomplished by means of taking the actual purchasers with the extension man. At the present time a cow dealer plans to bring a carload of cattle from Cache Valley, Utah. If the stock is all right and sold within reason, no attempt will be made to take individual purchasers to Cache Valley to buy.



Minidoka (Continued)

Both the farm bureaus on the project are being reorganized quite efficiently. There is a good deal of enthusiasm over the farm bureau work at the present time. Minidoka County farmers are back of their county agent and the farm bureau with a great deal of determination.

Eleven farm visits were made during the week ending December 6, fifty-eight office calls received and one meeting attended, with nine farmers present.

Winter seems to have settled on the project and it is difficult to do much efficient field work under the weather conditions.

The best pure bred herd of hogs on the project, owned by Mr. Polly, near Burley, was dispersed during the week to a number of farms over the project, and may result in more growers of pure bred Duroc hogs on the project.

Arrangements were made during the week for organizing a Shorthorn Association on the project. There are about twenty breeders of Shorthorns on or near the project and it is hoped to perfect an organization that will be effective, advertising the breed in a collective way.

Within the next few days there will be brought to the project a car of grade Holstein cattle from Cache Valley, Utah.

The cheese factory is now manufacturing over 400 pounds of cheese every other day. At the present market on cheese, they can pay 90 cents a pound for butter fat, not considering the cost of manufacture.

Newlands.

During the week ending November 29, there were received twenty-six calls for assistance, and visits were made to nine farms. During the past week some time was devoted to setting up a pair of large platform scales on the ranch of Mr. Johnston. A cooperative experiment has been planned with Mr. Johnston for the gathering of data relative to the cost of production of dairy products and the maintenance of dairy cattle. It is planned, in this cooperative experiment, to weigh all hay that is fed to the mature milking herd for one year. The animals, while dry, will be fed with the animals giving milk, and the total amount of hay fed during the year will be charged to the total production of milk and butter fat for the year. Careful records of production will be kept. All animals entering this experiment will be weighed at the beginning and close of the experiment. It is hoped that the results will give some idea of the amount of alfalfa hay required to produce one hundred pounds of butter fat or one hundred pounds of milk. No effort will be made to get these figures for individual cows, all figures to be based on the herd as a unit. The cattle to be used in this experiment are high grade Jerseys.



Newlands (Continued).

An effort will be made to carry on other cooperative experiments with other dairy herds along the same plan as the above. Considerable data has already been gathered by this office relative to the amount of alfalfa hay required for production of butter fat with individual cows during the lactation period.

It is gratifying to note that a graduate veterinarian, who has been recognized by the State Live Stock Sanitary Board, has recently come into this project for the purpose of practicing. If this party proves capable, it will relieve this office of much work of a veterinary nature which has been demanded of it. The local situation has been such that this office assumed somewhat the responsibility for the well-being of the dairy herds of the project, because of imadequate professional practicioners. With the relief that it is hoped is now at hand, it may be possible to largely dispense with most of the work of a veterinary nature. This will leave available much time that is badly needed for development work:

The weather for the past week has been rather discouraging. On November 26, the temperature reached 11 degrees above zero, and on November 27, it reached zero.

North Platte,

During the week ending December 6, ten farms were visited for general live stock work. The large drove of hogs at each of two of these farms was found to have contracted pneumonia during the recent snow storm, due to the very poor sheds and lack of bedding. One drove of calves was also visited during the week because of being sick with colds contracted during the storm.

Several of the dairy farms were visited during the week and general assistance was given in better methods of feeding and care. Two new men were assisted this week in starting records of milk production.

A conference was held with the manager of the Scottsbluff Creamery in regard to the creamery buying live poultry from the farmers. This office has tried for some time to interest a local firm in this business, so as to establish a permanent and reliable market for poultry on this project, and it is thought now that the creamery company will make arrangements to handle this business.

The weather this week has been very cold and stormy.

During the week ending December 13, only two farms were visited for livestock work. At one of these a drove of 280 calves were treated for "pink eye", and at the other a herd of hogs was treated for pneumonia. Several office conferences were held in regard to live stock problems. Another meeting was held with the Board of Directors of the Scottsbluff Creamery Co., in regard to the company buying eggs and live poultry from the farmers. Poultry, especially, has been hard to sell on the project at staple prices.

All week the thermometer has registered between 17 and 32 degrees below zero.



Yakima.

Fourteen farm visits were made and six farmers called at the office during the week ending December 6.

Considerable time was spent in visiting the farmers on the Tieton Project, who were interested in securing dairy cows. While a good share of the acreage on the Tieton unit is going to fruit and the sentiment among the farmers is well toward fruit growing, yet the higher portions of the project which are somewhat subject to the early and late frost which makes fruit growing more or less uncortain, the farmers are still continuing either their alfalta growing or dairying. At Cowichee is located the only cheese manufacturing plant in the Yakima Valley. This, no doubt, has a very favorable effect in stimulating the dairy interest on the upper portions of the Tieton. In visiting the farmers of this section of the country it was found that while there is no great and undue enthusiasm for dairying, quite a large number of farmers are wanting from one to five or six cows each. Without exception these men expressed themselves as desiring cows that can be relied upon as being profitable producers.

Owing to the difficulty of securing definite information, a circular letter is being sent out to the dairymen on the Tieton, and a questionnaire to be filled out and returned. By this method we hope to get in touch with every farmer who wants dairy stock of any kind. Later, a meeting will be called and plans made for securing cows for this locality. One of the local banks has agreed to finance the securing of dairy stock, provided it is needed.

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# DEMONSTRATIONS ON RECLAMATION PROJECTS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

DEC 2 7 1919

## PERSONNEL

## WESTERN IRSIGATION AGRICULTURE

| C. S. Scofield, Agriculturist in Charge,   |
|--|
| BELLE FOURCHE EXPERIMENT FARM,   |
| David W. Jones, Jr., Assistant  UMATILLA EXPERIMENT FARM,  |
| H. K. Dean, Superintendent  YUMA EXPERIMENT FARM, Superintendent  Edward G. Noble, Superintendent  C. E. Peterson, Assistant               |
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| W. E. Meyer,   |
| NORTH PLATTE RECLAMATION PROJECT, Scottsbluff, Nebraska  George O. Unruh, Agriculturist  SHOSHONE RECLAMATION PROJECT, Powell, Wyoming     |
| Don G. Magruder,   |
| UNCOMPANGRE RECLAMATION PROJECT,   |
| F. R. Ellis, Clerk, Washington, D. C.  |

Of the Offices of

### WESTERN IRRIGATION AGRICULTURE

And

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Vol. XVI.

December 27, 1919.

No.25

## Western Irrigation Agriculture.

### Field Notes.

San Antonio.

During the week ending December 13, the maximum temperature was 74, minimum 25, and greatest daily range 30.

Precipitation amounted to .03 inch.

Plowing of Sudan and sorghum plats was continued. Plats A6-10, oat plat, and A6-14, milo plat, were plowed. The remainder of the cotton stalks on the rotation plats were cut and raked. Corn stalks on F3 and C5 were cut. Several varieties of cereals, including wheat, oats, barley, emmer, rye and spelts were seeded on C3 for work in connection with rust investigations. Mr. R. S. Kirby, of the Cereal Office, is in charge of this work. That part of the nursery where alfalfa has been growing was plowed. The seed of Salvia hispanica was harvested. Samples of cotton from the rotation plats were ginned and the lint percent worked out. Owing to the bad condition of the seed, the seed index was not obtained. Ohra seed from cotton varietal test plat on C3 was threshed out.

Other jobs included removal of fence from steer pasture on C4, work on cess-pool, burning cotton stalks and

grinding feed.

## Demonstrations on Reclamation Projects.

## Field Notes.

Belle Fourche.

During the week ending December 13, nine office conferences were held, but no farm visits were made. The thermometer was below zero throughout the week, until Saturday, when it reached 8 degrees above.



Belle Fourche (Continued).

Conferences were held with the county agent during the weed arranging for a meeting of the county farm bureau. Resolutions were drawn up for presentation to the assembled members, regarding prairie dog extermination and the sanctioning of a campaign for better sires and livestock improvement.

Several inquiries were received during the week concerning the feeding value of cotton seed hulls. Alfalfa hay has practically all been sold or contracted for, and more is not available because of prohibitive prices. Common Nebraska sloughgrass hay was quoted during the week at \$27. a ton f.o.b. local stations. A cotton seed feed products salesman was here Saturday, and stated that over twenty cars of hulls have been ordered for delivery in this vicinity. Cotton seed cake will be used as a supplement. This salesman is advocating the use of from one to two pounds of cake a day. The cotton seed hulls were bought for \$17.40 a ton delivered. Cottonseed cake is costing \$85.30 delivered. The feeding of hulls in this section is an experiment, and their use will be observed with a great deal of interest. Feeding them with 43 percent cottonseed cake will very likely show them a cheaper roughage than a poor grade of hay at present prices.

During the week ending December 20, twelve office conferences were held, three farms visited and three additional conferences held. A press article regarding the better sires

campaign was prepared for five papers.

A visit was made to the Reclamation Office to note the progress being made with the circulation of the livestock questionnaire. The commissioners report no trouble in gaining the information desired. However, considerable confusion exists among many project farmers relative to that constitutes dairy and beef cattle. Cows with Sociahorn-Hereford breeding in some instances were classed as dairy cattle. Also a number of Holstein steers were classed as beef cattle. The publicity resulting from the better sires campaign launched during the week may have a tendency to correct this condition.

The directors of the Belle Fourche Commercial Club, in company with the local dairyman, were met Friday to discuss action relative to the promulgation of a city milk ordinance.

One day was spent in company with the Extension Veterinarian and the County Agent, investigating diseases in several herds of cattle. Seven head had been lost and a number of others were sick. The veterinarian pronounced the trouble Hemorrahagic septicemia. Steps were taken to prevent the spread of this malady to other herds and to control it in herds already infected.



Belle Fourche (Continued).

The farm Bureau meeting called for Thursday of this week did not materialize, presumably because of the very muddy condition of the roads. It is likely this meeting will be held during the early summer.

Weather conditions have moderated and livestock men are feeling much encouraged. Fall weather has prevailed during the past week, with only light freezes during the night.

Huntley.

During the week ending December 13, sixteen requests for assistance were received from all sources, and two form visits were made.

The week was characterized by severe and stormy weather. The Reclamation Service thermometer, at Ballantine, registered 41 degrees below Zero one night. Strong winds have drifted snow until it lays three to four feet deep on some of the roads. Several cattle were frozen to death and others suffered injury.

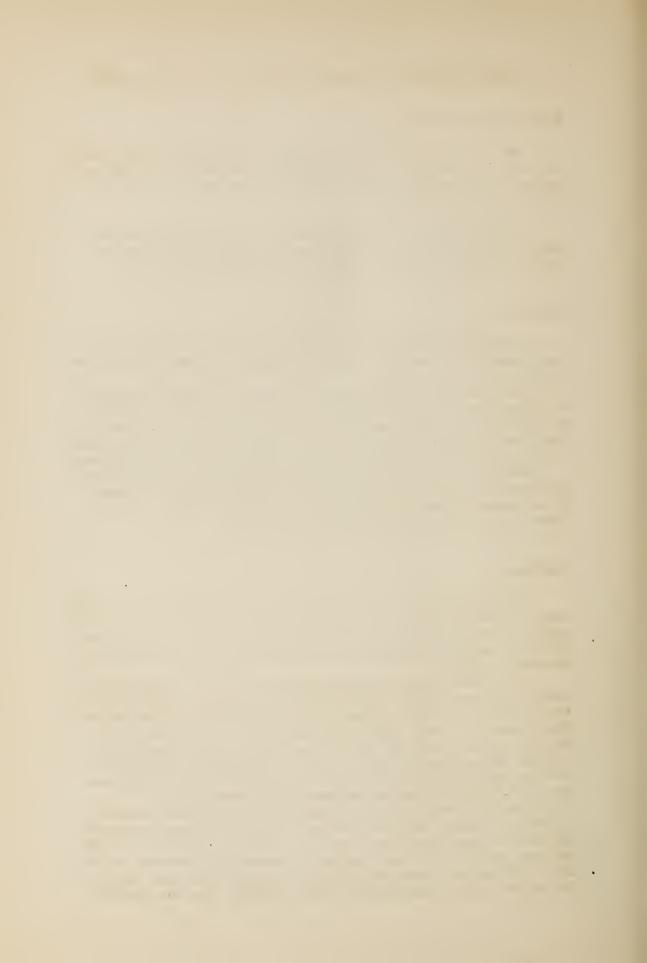
Most of the calls for assistance related to the care and feeding of stock or to diseased or injured animals. In two cases owners broke roads and took the agriculturist to their farms to see animals in a serious condition.

Mini doka.

During the week ending December 13, fifty-six office calls were received, four farm vixits were made, one meeting attended with a total attendance of 18 people, and several conferences were held with men interested in the livestock development of Minidoka County.

The weather during the week was very cold. Sheepmen suffered quite severely. A number of the bands were still out on the desert and owners paid as high as \$40. per ton for hay to feed them. One truck was sent from Rupert to Minidoka with a load of shelled corn and the sheepmen confiscated the truck for use in hauling hay to help them out of their difficulties. Several instances of deaths from the effects of the cold weather were reported in the Southern Idaho country.

About six weeks ago one farmer was assisted in securing a bunch of cattle from Star Valley, Wyoming. Since then conditions have grown much more severe in regard to the feed shortage and, when the present embargo on shipping livestock is removed, it may be quite possible that several more cars of grade Holsteins will be purchased in that vicinity for the project.



Minidoka (Continued).

The calf club organized in Cassia County has aroused some interest in Minidoka County, and it is quite probable that such a club may be organized in the latter county.

Without a doubt, there is no more progressive group of farmers on the Minidoka project than the Shorthorn breeders. Twelve of them gathered at Burley on Saturday and organized what is known as the Minidoka-Cassia Shorthorn Breeders Association. Dean Sullivan, of Acequia, was elected president; Chas. Uhlig, of Churchill, vice-president; Leon Gillette, of Burley, secretary and treasurer; and Grover Rich, of Burley, and T. S. Eastwood, of Augert, directors.

The Rupert Cheese Factory is paying 76¢ a pound for but-

ter fat at the present writing.

During the week ending December 20, fifty-eight calls were received, nine farm visits were made, and a number of office conferences were held. Two meetings were attended, one of them being the annual farm tureau meeting.

The annual form bureau meeting this year was held on December 17, and it was noted with great satisfaction that there has been a favorable change in the attitude of the farmers of Minidoka County toward farm bureau work. It is felt that this work is essential to the demonstration work as carried on by this office and considerable time and effort has been given in the past year to the development of the Manidoka County Farm Bureau. This year, instead of wranglings, arguments and discussions as to how to dispose of the county agent, abolish the farm bureau, and passing resolutions favoring the resignation of the Secretary of Agriculture, the members were enthusiastic and interested in the work. A number of them made favorable comments on the farm bureau ideas and went on record by a rising vote to ask the county commissioners for an appropriation to carry on home demonstration work by appointing a permanent person for that work in Minidoka County, feeling that they were unjust to the other member of the family in having a man here to help them with their work and not having a lady to give similar help to their wives.

Newlands.

During the week ending December 6, there were received twenty-nine calls for assistance and five visits were made to farms. Some time was devoted during the week to a cooperative shipment of hogs. One carload was sent to Reno, Nevada. The price received for prime hogs was  $13-3/4\phi$  in Reno. Preparations were made during the week for exportation from this valley of registered and grade herd Jersey cattle into the Los Angeles section of California. This terminates the breeding of Jersey cattle on the farm, which was the first place



Newlands (Continued).

where registered Jersey cattle were bred in this valley. Many of the Jersey herds of the project secured some of their foundation animals from this farm.

The recent snow storms and low temperatures have interfered considerably with the field work. The precipitation amounted to .68 inches of snow and the minimum temperature was 7 degrees:

Considerable time was devoted to summarizing the year's herd testing report of Mr. Kallenbach. It is expected that some interesting data will be secured from this report.

